DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
2300 E STREET NW
WASHINGTON DC 20372-5300

IN REPLY REFER TO
BUMEDINST 6224.8A
BUMED-M3C1
12 Feb 2009

BUMED INSTRUCTION 6224.8A

From: Chief, Bureau of Medicine and Surgery
To: Ships and Stations Having Medical Department Personnel

Subj: TUBERCULOSIS CONTROL PROGRAM

Ref: (a) Diagnostic Standards and Classification of Tuberculosis in Adults and Children, American Journal of Respiratory and Critical Care Medicine, Vol. 161. pp 1376-1395, 2000
(b) American Thoracic Society, Centers for Disease Control and Prevention and Infectious Diseases Society of America. Treatment of Tuberculosis. MMWR 2003; 52 (No. RR-11)
(c) Centers for Disease Control and Prevention. Targeted Tuberculin sting and Treatment of Latent Tuberculosis Infection. MMWR 2000; 49 (No. RR-6)
(d) CDC. Guidelines for Using the QuantiFERON ®-TB Gold Test for Detecting *Mycobacterium tuberculosis* Infection, United States. MMWR 2005; 54 (No. RR-15)
(e) CDC. Guidelines for the Investigation of Contacts of Persons with Infectious Tuberculosis. MMWR 2005; 54 (No. RR-15)
(f) CDC. Guidelines for Preventing the Transmission of *Mycobacterium Tuberculosis* in Health-Care Settings, 2005. MMWR 2005; 54 (No. RR-17)
(g) World Health Organization. Tuberculosis and Air Travel: Guidelines for Prevention and Control. WHO/HTM/TB/2008.399
(h) BUMEDINST 6220.12B

Encl: (1) Tuberculosis Screening and Testing
(2) Evaluation and Management of New Positive Tests for Latent Tuberculosis Infection
(3) Tuberculosis Contact Investigation Responsibility, Initial Tuberculosis Patient Management, and Required Reports
(4) List of TB Consultants
(5) List of Acronyms

1. Purpose. To provide policy and guidance for controlling tuberculosis (TB) among Department of the Navy (DON) military personnel and Military Sealift Command (MSC) civilian mariners (CIVMAR) and to announce the revision of NAVMED 6230/5 (Rev. 10-2007), Child Immunization Record. Tuberculosis control efforts for other populations (e.g., health care workers, DON civilians, eligible beneficiaries, inmates of detention and confinement facilities, etc.) are to be guided by and consistent with current U.S. Centers of Disease Control guidance and applicable Federal, State and local laws.

2. Cancellation. BUMEDINST 6224.8.

3. Background. The threat of TB is a significant public health concern in the naval service. Although being a military member or CIVMAR is not in itself a risk factor for tuberculosis, particular situations imposed by military service may present an increased risk of infection. TB continues to occur among military personnel. Navy and Marine Corps personnel often operate in areas of the world where there is a high prevalence of TB infection. Close working and living quarters in military and shipboard operations demand vigilant public health measures to prevent the acquisition and spread of TB. Early detection and respiratory isolation of persons infected with TB significantly reduces the chance that infection will spread to others.

4. Program Summary. Our strategy to control TB is:

a. To promptly detect, treat, and report persons who have developed clinically active TB.

b. To protect persons in close contact with patients diagnosed with infectious TB.

c. To prevent TB disease in military personnel, MSC CIVMAR's, DON employees, and certain health care beneficiaries through targeted testing and effective treatment for latent TB infection, as described in enclosures (1) through (4).

d. That DON contractors, especially in the deployment setting, should also be assessed for TB control program compliance either through contracting oversight or direct care where applicable.

5. Recording. For medical record and information gathering purposes we provide NAVMED 6224/7, Initial Tuberculosis Exposure Risk Assessment, NAVMED 6224/8, Interim Tuberculosis Exposure Risk Assessment, and NAVMED 6224/9, Monthly Evaluation for Patients Receiving Treatment for Latent Tuberculosis Infection. These forms will constitute part of the patient's medical record.

6. Responsibilities

a. Commanders, commanding officers, officers in charge of medical treatment facilities (MTF), and Fleet or Fleet Marine Force Surgeons shall:

(1) Control TB in their supported populations by managing local control efforts in accordance with this directive and current American Thoracic Society, Centers for Disease Control and Prevention (CDC), and World Health Organization (WHO) guidelines outlined in references (a) through (g). Occupational Health and Safety Administration guidance, Federal law, State law, and local ordinance should also be followed.

(2) Assist Navy Environmental Preventive Medicine Units (NAVENPVNTMEDUs) in the conduct, completion, and reporting of TB contact investigations.

b. Officers in Charge, NAVENPVNTMEDUs shall:

(1) Provide technical support as needed to all Navy and Marine Corp units in their geographic area of responsibility (AOR).

(2) Conduct contact investigations of all active TB cases within the DON in their AOR.

7. Consultants. TB consultations can be obtained from a NAVENPVNTMEDU, Navy and Marine Corps Public Health Center, or the Infectious Disease or Pulmonary Divisions of National Naval Medical Center Bethesda, MD, Naval Medical Center, Portsmouth, VA, or Naval Medical Center, San Diego, CA, as listed in enclosure (4).

8. Acronyms. An acronyms listing is provided in enclosure (5).

9. Forms and Reports

a. The following General Services Administration form is available electronically at http://www.gsa.gov/Portal/gsa/ep/formslibrary.do?formType=SF: SF 600 (06/1997), Medical Record - Chronological Record of Medical Care.

b. The following Bureau of Medicine and Surgery forms are available electronically from the "Forms" tab at http://navymedicine.med.navy.mil/default.cfm?selTab=Directives:

(1) NAVMED 6224/7 (08-2008), Initial Tuberculosis Exposure Risk Assessment.

(2) NAVMED 6224/8 (08-2008), Interim Tuberculosis Exposure Risk Assessment.

(3) NAVMED 6224/9 (08-2008), Monthly Evaluation for Patients Receiving Treatment for Latent Tuberculosis Infection (LTBI).

(4) NAVMED 6230/4 (Rev. 10-2007), Adult Immunizations Record.

(5) NAVMED 6230/5 (Rev. 10-2007), Child Immunizations Record.
http://navymedicine.med.navy.mil/default.cfm?selTab=Directives

c. The Medical Event Reporting requirements contained in this instruction are covered under the report control symbol established in reference (h).

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http://navymedicine.med.navy.mil/default.cfm?seltab=directives

TUBERCULOSIS SCREENING AND TESTING

1. TB Testing On Entry Into Naval Service. Skin and blood tests are available for identifying individuals asymptomatically infected with the *Mycobacterium tuberculosis* complex bacteria that cause TB. Appropriate testing identifies persons with latent tuberculosis infection (LTBI). These individuals are at increased risk for developing active TB, and should be treated to reduce their risk for developing active disease and transmitting TB infection to others. Personnel diagnosed with LTBI based on a positive skin or blood test and without active disease are not infectious.

a. All Navy and Marine Corps accessions, and all individuals beginning employment as CIVMARs for the MSC must be tested for LTBI unless there is documentation of previous TB infection as described below.

b. Individuals with a history of TB, a positive Tuberculosis Skin Test or other LTBI test, or treatment for LTBI must provide any available medical documentation of clinical evaluations, hospitalizations, diagnoses, and treatments. Documentation includes copies of pertinent medical records, treatment records, or a physician's statement on letterhead stationery. Pertinent information should be transcribed into the medical record. If such documentation is not available, follow the testing procedures in this instruction.

2. LTBI Screening At Times Other Than Entry

a. Screen all active duty and Reserve personnel during the Periodic Health Assessment, using enclosure (2), to determine their TB exposure history and risk of acquiring TB. CIVMARs will be screened annually or during their periodic physical examination. Subsequently, perform LTBI skin tests or blood tests only on individuals deemed to be at risk of acquiring TB. Additional screening and subsequent testing may be done:

(1) As directed by combatant commanders.

(2) As part of a contact or outbreak investigation.

(3) If clinically indicated by an individual practitioner based on history or physical (clinic visit, Periodic Health Assessment, Post-deployment Health Assessment, etc.).

(4) As recommended by the cognizant NAVENPVNTMEDU.

b. Results from this additional screening and testing can be used to meet other LTBI assessment requirements if performed within 6 months of the requirement date.

3. Testing After Receipt of Orders to a Commissioned Vessel. All personnel must be tested for LTBI (or clinically evaluated for persons with prior LTBI diagnosis) during their operational suitability screening. LTBI test results documented within the 6 months prior to reporting aboard a commissioned vessel are acceptable.

4. Testing Before Separation From Naval Service. All personnel must have LTBI test results (or clinically evaluated for persons with prior LTBI diagnosis) documented within the 6 months prior to separation or retirement.

5. LTBI Testing Guidance

a. TST

(1) Tuberculin, Purified Protein Derivative (PPD). The approved tuberculin skin test material for the routine Mantoux test is the Tween-80-stabilized intermediate strength PPD (5 TU equivalent) available as NSN 6505-00-105-0102. The preferred product should be Tubersol® from Sanofi Pasteur vice Aplisol® from Parkedale Pharmaceuticals. However, if Tubersol® is not available, Aplisol® can still be used.

(2) Recording Administration. Record the following information on the NAVMED 6230/4, Adult Immunization Record, NAVMED 6230/5, Child Immunization Record, and in an authorized Navy electronic medical information system, either Armed Forces Health Longitudinal Technology Application (AHLTA), Medical Readiness Reporting System (MRRS) or Shipboard Non-Tactical ADP Program (SNAP) Automated Medical System (SAMS). Include date administered, type, and strength of tuberculin, manufacturer, lot number, and route of administration.

(3) Measurement. The TST reaction must be read within 48 to 72 hours after PPD administration. Measure induration to the nearest whole millimeter (mm). If a person returns more than 72 hours after TST placement, record the result as "Not Read" and apply a TST on the opposite forearm. If the person does not return at all, enter "Not Read" on the appropriate forms, recall the person and administer another TST.

(4) Recording Result. Enter TST test result in mm of induration on NAVMED 6230/4 or NAVMED 6230/5 and enter into the authorized electronic medical information system, either AHLTA, MRRS or SAMS. If there is no induration, record result as "0 mm" or "zero mm." A TST record is not complete without clear documentation of all required data elements and entry into an authorized electronic immunization tracking system for electronic data storage and reporting.

b. Blood Assay for *M. tuberculosis* Infection (BAMT)

(1) A U.S. Food and Drug Administration approved BAMT, QuantiFERON®-TB Gold (QFT-G), is available as a diagnostic aid for *M. tuberculosis* infection. QFT-G testing is approved for use in all circumstances in which the TST is used. QFT-G is designed for use in place of, not in addition to, a TST. Reference (d) offers guidance for the use and interpretation of BAMT.

(2) A positive QFT-G result should prompt the same public health and medical interventions as a positive TST reaction. As with the TST, QFT-G does not discriminate between LTBI and active TB, so all persons with a positive QFT-G test should be evaluated for active TB before LTBI is diagnosed. As with a negative TST result, a negative QFT-G result should not be used alone to exclude *M. tuberculosis* infection in those with symptoms or signs suggestive of TB disease.

(3) Recording Result. As with the TST, QFT-G results must be recorded in detail in the medical record. Include the date of the blood draw, result in specific units, the concentration of cytokine measured, and the laboratory interpretation (positive, negative, or indeterminate).

6. Significant LTBI Conversion Rate

a. Based on historical TST results associated with routine (non-targeted) screening, the rate of newly-identified LTBI converters is normally no more than one to two percent of personnel tested per year in most Navy and Marine Corps settings. If the rate of newly identified converters is two times greater than the expected baseline conversion rate of the command among any group tested, contact the cognizant NAVENPVNTMEDU for specific guidance.

b. If there is a concern that TSTs have been improperly administered or read, consider retesting, but do not ignore a positive TST. Contact the cognizant NAVENPVNTMEDU for LTBI testing and risk assessment guidance.

7. Special Situations

a. Previous Bacillus Calmette Guérin (BCG) immunization. TSTs can be administered to persons who have previously received BCG immunization. A positive TST reaction in BCG-immunized individuals should be regarded as indicative of TB infection. These individuals must be evaluated for active TB infection prior to receiving treatment for LTBI.

b. False Negative TST results. False negative tests can occur because of specific immunosuppression due to TB infection or disease, general immunosuppression due to the presence of immune system compromising conditions or receipt of immunosuppressive medication, or when a TST is administered within a short period after receiving parenteral live-attenuated virus vaccines. A TST may be placed on the same day parenteral live-attenuated virus vaccines are given or at least 4 weeks later. Where compliance with the live virus vaccination window proves problematic, consider QFT-G.

c. Pregnancy. TSTs are both safe and reliable throughout pregnancy and should be administered as appropriate.

d. TST "Allergy." If a TST result is thought to be consistent with an allergic reaction, subsequent TST placement should be deferred until a full evaluation can be performed by an allergist/immunologist. Contact the cognizant NAVENPVNTMEDU for further LTBI screening guidance.

e. Two-Step Procedure. Do not use the two-step procedure for recruit or officer accession screening or other active duty screening programs. It is most useful in reducing the likelihood of interpreting a boosted response as evidence of a new infection such as in older health care workers entering an MTF screening program.

f. Positive TST. Service members with a positive TST undergoing further evaluation should not deploy until the evaluations are completed and all results have been reported (for example, chest X-ray, Mycobacterium cultures, etc.).

EVALUATION AND MANAGEMENT OF NEW POSITIVE TESTS FOR LATENT TUBERCULOSIS INFECTION

1. TST Interpretation. Evaluate all individuals with a TST induration ≥ 5 mm to determine if their test is positive based on risk factors outlined in Table 1 below. In addition, an increase in reaction size of 10 mm or more, within a three-year period, also is considered a skin test conversion or positive test indicative of a recent infection with TB. Service accessions and individuals assigned to operational military forces, including shipboard personnel, without risk factors for acquiring TB are in low risk group in Table 1, so their TST is considered possible only for indurations ≥ 15 mm. If the individual does not meet the criteria for a positive TST reaction based on risk factors in Table 1 or clinical assessment, continue routine LTBI screening per enclosure (1).

TABLE 1
Criteria for Determining a Positive Tuberculin Skin Test Reaction

High Risk: Reaction ≥ 5 mm of Induration Is Considered Positive In:	Medium Risk: Reaction ≥ 10 mm of Induration Is Considered Positive In:	Low Risk Reaction ≥15 mm of Induration Is Considered Positive In:
Recent close contacts of active TB disease patients Persons with fibrotic or other changes on chest radiograph consistent with prior TB Patients suspected of having active TB disease	Recent immigrants (i.e., within the last 5 years) from high TB prevalence countries Mycobacteriology laboratory personnel Persons with clinical conditions that place them at increased risk	Persons with no risk factors for TB

2. Initial Evaluation: Persons with Positive BAMT or TST. Ensure all persons newly identified as having a positive TST and all persons with a positive BAMT are evaluated by a medical officer, nurse practitioner, physician's assistant, or independent duty corpsman to determine if they have active TB disease.

a. The evaluation of positive tests must include:

(1) An appropriate history and physical examination. Use NAVMED 6224/7, Initial Tuberculosis Exposure Risk Assessment (TST). Those creating encounter templates in AHLTA should use enclosure (4) as a guide and select ICD-9- M code V74.1 "Screening Exam for Pulmonary Tuberculosis."

(2) Chest X-rays. Chest x-rays should be examined for fibrotic changes consistent with old TB infection and for any signs of active TB. Pregnant women also should have active TB ruled out with chest x-rays using appropriate shielding.

b. Enclosure (4) contains of a list of consultants that providers should contact if they have questions about the evaluation and treatment of persons with positive tests.

3. Management of Individuals with a New Positive BAMT or TST Reaction. An individual with a new positive BAMT or TST result that meets one of the criteria for a positive TST reaction listed in Table 1 must be managed accordingly.

a. Rule out active TB. This assessment can be done concurrently with the initial evaluation in paragraph 2 above for new reactors. Suspect active TB if the individual has signs and symptoms of a clinically manifest infection or chest x-ray changes consistent with active TB. A person with suspected active disease should be masked and isolated immediately and then referred to an appropriate provider at a medical treatment facility for evaluation, diagnosis, and initial treatment.

b. LTBI treatment. If active TB is ruled out and the individual meets the criterion for LTBI, isoniazid (INH) treatment shall be initiated unless medically contraindicated. INH 5 mg/kg (300 mg max) daily for 9 months is the preferred treatment regimen to accomplish 270 daily doses within 12 months. INH 15 mg/kg (900 mg max) twice weekly for 9 months is an alternate regimen that may be used only in combination with directly observed therapy (DOT). For drug regimens other than INH, consult with a TB specialist listed in enclosure (3). Whenever it is certain or probable that an individual acquired their TB infection from a person with INH-resistant or multiple drug resistant TB, consult the cognizant NAVENPVNTMEDU or a specialist listed in enclosure (4) to determine the appropriate LTBI treatment. Management and treatment of a pregnant patient with LTBI should be done in consultation with the patient's obstetric provider.

(1) Baseline laboratory testing. Baseline laboratory testing is not routinely indicated for patients at the start of LTBI treatment. However, measurement of serum AST (SGOT), ALT (SGPT) and bilirubin should be performed on those whose initial evaluation suggests an elevated risk for liver disease or INH-induced hepatoxicity.

(2) Laboratory monitoring. Routine laboratory monitoring is necessary for those individuals whose baseline liver function tests are abnormal, and for those who are at risk for liver disease. Consider withholding INH if a patient's transaminase levels exceed three to five times the upper limit of normal.

(3) Clinical monitoring. Monthly follow up of individuals receiving therapy for LTBI must be conducted until treatment is completed. The health care provider will evaluate patient compliance, possible side effects, and indications of active TB and document monthly valuations on NAVMED 6224/9, Monthly Evaluation of Patients Receiving Therapy for Latent Tuberculosis Infection (LTBI). Those creating encounter templates in AHLTA should use NAVMED 6224/9 as a guide and select ICD-9-M code V68.1 "issue of repeat prescriptions." Clinical monitoring is indicated for all patients, including physical assessment to check for signs of hepatitis or other adverse effects. Counsel patients on potential adverse drug reactions that may occur with their drug therapy, when to discontinue medication(s), and when to report for prompt medical evaluation. If any question of adverse drug reaction or active tuberculosis disease results from clinical monitoring, refer the patient to a medical officer as soon as possible.

(4) Directly Observed Therapy (DOT). Whenever feasible, DOT is the recommended mechanism to assure LTBI treatment compliance. DOT should be used for persons who are at very high risk for developing active TB and who are at high risk of non-adherence. It is especially appropriate when a household member is on directly observed therapy for active disease.

4. Previous Positive LTBI Test

a. If a person gives an undocumented history of a positive BAMT or TST without documentation of an adequate course of treatment for LTBI or active TB, perform a BAMT or TST. If the person's BAMT is positive or if the TST reaction is $\geq$ 5 mm of induration, proceed as per paragraph 1 above.

b. If a person has a credible documented past positive TST or BAMT, do not perform another LTBI test. Document whether the individual received an adequate course of treatment for LTBI or active TB. If the individual did not receive an adequate course of therapy for LTBI, manage per paragraph 3 above.

5. Patient Education. The patient must be educated about the implications of his or her BAMT or TST results, the benefits and risks of LTBI treatment, and the potential signs of an adverse drug effect. The necessity for strict adherence to the prescribed course of treatment in the absence of untoward side effects must be strongly emphasized throughout the course of treatment. Document patient education and counseling on the SF 600, "Medical Record Chronological Record of Medical Treatment."

6. Completion of Treatment for LTBI. Document successful completion of appropriate LTBI treatment regimen in the medical record. No additional LTBI testing or chest radiograph is required unless otherwise indicated.

7. Missed Doses or Interrupted LTBI Treatment. Persons on treatment for LTBI often miss doses. Do not restart the 9-month daily INH regimen if at least 270 doses of INH can be administered within a 12-month period. If treatment has been interrupted for more than 2 months, patients must be examined to exclude active TB disease. Clinicians should consider the use of DOT to ensure adherence to LTBI treatment regimens.

8. Continuity of Care for LTBI. All naval service beneficiaries who transfer from the treating health care facility or leave the military service before completing a course of treatment for LTBI must be counseled on the need for continued treatment, and counseling must be documented on NAVMED 6224/9 (08-2008), Monthly Evaluation for Patients Receiving Treatment for Latent Tuberculosis Infection (LTBI).

a. The treating medical department shall contact the gaining medical departments about all transferring members currently receiving treatment for LTBI.

b. The transferring medical department shall ensure the member has enough medication to continue LTBI treatment enroute to the gaining medical department. Gaining medical departments shall continue therapy as stated in paragraph 3b above.

c. Members leaving active service are eligible for continued TB treatment and follow up care at Veteran's Administration (VA) facilities by calling the local VA prior to separation or discharge. Providers shall make initial arrangements for the member's follow up, either at a military facility (if member is still eligible for care), at the VA facility closest to their home, or through alternative options such as local health departments or private providers.

TUBERCULOSIS CONTACT INVESTIGATION RESPONSIBILITY, INITIAL TUBERCULOSIS PATIENT MANAGEMENT, AND REQUIRED REPORTS

1. Program Summary. Upon discovery of a suspected or confirmed case of active TB in a service member assigned to Navy or Marine Corps operating forces (Navy and Military Sealift Command ships, aircraft squadrons, Marine operating forces, construction battalion detachments, and naval special warfare personnel), the commanding officer or officer in charge must notify the cognizant NAVENPVTMEDU (see enclosure (4)), and the local health department as soon as possible. The cognizant NAVENPVTMEDU will conduct a TB contact investigation, assisted by command medical personnel, based on the CDC guidelines in reference (e). Upon completion of the TB contact investigation, the NAVENPVTMEDU will provide an investigation report to the Command, cognizant FLEET/TYCOM Surgeon, and Navy and Marine Corps Public Health Center (NMCPHC). The servicing MTF will conduct TB contact investigations on persons not assigned to naval operational forces. The MTF must notify the cognizant NAVENPVNTMEDU upon initiating a contact investigation and provide the completed investigation report to the Navy Medical Region and NMCPHC.

2. Contact Investigation Responsibility. The commanding officer and officer in charge of the individual diagnosed with active TB disease is responsible for ensuring the contact investigation is initiated rapidly and command support for the NAVENPVTMEDU's or MTF's public health interventions is maintained until the investigation is completed. The commanding officer and officer in charge is responsible for the continuation and completion of contact investigations initiated among personnel assigned to or transferred from their command. Personnel transferring from the command during the course of a contact investigation must have appropriate documentation in their medical record, and the receiving command must be notified of their status. Personnel who are enrolled in a contact investigation but are separating from the Service before the 8-10 week repeat TST/BAMT, must be identified to the local public health department for follow-up testing.

3. Protection of Non-Infected Persons in Spaces Occupied by Patients with Infectious Tuberculosis Disease. Surgical masks are designed to prevent respiratory secretions of the person wearing the mask from entering the air. Particulate respirators are designed to filter air before it is inhaled by the person wearing the respirator. Patients with suspected or known active TB should wear surgical masks, when indicated, to minimize aerosolization of respiratory secretions. They should not wear a particulate respirator, with or without an exhalation valve. Precautions for pre-MTF or shipboard management of persons with known or suspected active TB include:

a. Transfer persons with known or suspected active TB to a MTF as soon as practical.

b. Pending and during transfer, persons with known or suspected active TB should wear a surgical mask at all times. Every attempt should be made to remove a potentially active TB case from shared berthing spaces or medical wards until the individual can be transferred to a MTF.

c. Medical department personnel must wear particulate respirators (N95 minimum) when working in rooms or spaces containing a person with known or suspected active TB.

d. Visitors to rooms or spaces containing a person with known or suspected TB should wear a particulate respirator. When this is not possible, visitors should wear a surgical mask and minimize time spent in the room/space. All visitors must be made aware that the surgical mask does not provide complete protection from airborne infectious particles.

4. Tuberculosis and Air Travel. Assessing the risk of TB transmission on board aircraft presents public health challenges. Employ the guidance in reference (g) when conducting TB contact investigations with suspected transmission within aircraft cabins.

5. Reporting Requirements. A Medical Event Report must be submitted for all new cases of active TB or suspected new cases of active TB by the ship or station within 24 hours. Civilian or other public health authorities must be notified, as appropriate. Submit a second Medical Event Report in active TB cases when the disease is either ruled in or out.

LIST OF TB CONSULTANTS

Officer in Charge Navy Environmental and Preventive Medicine Unit Number 2 1887 Powhatan Street Norfolk, VA 23511-3394 DSN: 377-6600 Comm: (757) 953-6600 FAX DSN: 377-7212 Comm: (757) 953-7212/7213 PLAD: NAVENPVNTMEDU TWO NORFOLK VA Web site: http://navymedicine.med.navy.mil/nepmu2/ E-mail: nepmu2norfolkthreatassessment@med.navy.mil
Officer in Charge Navy Environmental and Preventive Medicine Unit Number 5 Naval Station Box 368143 3235 Albacore Alley San Diego, CA 92136-5199 DSN: 526-7070 Comm: (619) 556-7070 FAX DSN: 526-7071 Comm: (619) 556-7071 PLAD: NAVENPVNTMEDU FIVE SAN DIEGO CA Web site: http://www.nepmu5.med.navy.mil E-mail: nepmu5@nepmu5.med.navy.mil
Commanding Officer Navy and Marine Corps Public Health Center 620 John Paul Jones Circle Ste 1100 Portsmouth, VA 23708-2103 DSN: 377-0700 Comm: (757) 953-0700 After hours: (757) 621-1967 FAX DSN: 377-0685 Comm: (757) 953-0685 PLAD: NMCPHC PORTSMOUTH VA Web site: http://www-nmcphc.med.navy.mil E-mail: epi@nehc.mar.med.navy.mil
National Naval Medical Center Infectious Diseases Division 8901 Wisconsin Avenue Bethesda, MD 20889-5600 DSN: 295-5246/6400 Comm: (301) 295-5246/6400 FAX DSN: 295-2988/2992 Comm: (301) 295-2988/2992 Web site: http://www.bethesda.med.navy.mil/patient/health_care/medical_services/infectious_disease/index.aspx E-mail: nnmcid@Bethesda.med.navy.mil

Naval Medical Center Infectious Diseases Division 620 John Paul Jones Circle Portsmouth, VA 23708 DSN: 377-5179/7005 Comm: (757) 953-5179 FAX DSN: 377-5514 Comm: (757) 953-5514 Web site: http://www-nmcp.mar.med.navy.mil/InfectDisease/index.asp
Naval Medical Center Infectious Diseases Division 34800 Bob Wilson Drive Suite 201 San Diego, CA 92134-5000 DSN: 522-7475 Comm: (619) 532-7475 FAX DSN: 522-7478 Comm: (619) 532-7478 Web site: http://www-nmcsd.med.navy.mil/index.cfm
National Naval Medical Center Pulmonary Diseases Division 8901 Wisconsin Avenue Bethesda, MD 20889-5600 DSN: 295-4191 Comm: (301) 295-4191/4193 FAX DSN: 295-2831 Comm: (301) 295-2831 Web site: http://www.bethesda.med.navy.mil/patient/health_care/medical_services/pulmonary_medicine/index.aspx
Naval Medical Center Pulmonary Disease Division 620 John Paul Jones Circle Portsmouth, VA 23708 DSN: 377-2075 Comm: (757) 953-2075 FAX DSN: 377-0832 Comm: (757) 953-0832 Web site: http://www-nmcp.mar.med.navy.mil/Pulmonary/index.asp
Naval Medical Center Pulmonary Diseases Division 34800 Bob Wilson Drive San Diego, CA 92134-5000 DSN: 522-7600/7601/6679 Comm: (619) 532-7600/7601/6679 FAX DSN: 522-7606/7025 Comm: (619) 532-7606/7025 Web site: http://www-nmcsd.med.navy.mil/index.cfm E-mail: Pulmonary-List@nmcsd.med.navy.mil

LIST OF ACRONYMS

AHLTA	Armed Forces Health Longitudinal Technology Application
ALT	Alanine Aminotransferase
AOR	Area Of Responsibility
AST	Aspartate Aminotransferace
BAMT	Blood Assay for *M. tuberculosis* Infection
BCG	Bacillus Calmette-Guérin
CDC	Centers for Disease Control and Prevention
CIVMAR	Civilian Mariner
DON	Department of the Navy
DOT	Directly Observed Therapy
ICD-9	International Classification of Diseases, Ninth Revision
INH	Isoniazid
LTBI	Latent Tuberculosis Infection
MRRS	Medical Readiness Reporting System
MSC	Military Sealift Command
MTF	Military Treatment Facility
NAVENPVTMEDU	Navy Environmental Preventive Medicine Unit
NMCPHC	Navy and Marine Corps Public Health Center
PPD	Purified Protein Derivative
QFT-G	QuantiFERON®-TB Gold
SAMS	Shipboard Non-Tactical ADP Program (SNAP) Automated Medical System (SAMS)

SGOT	Serum Glutamic-Oxaloacetic Transaminase
SGPT	Serum Glutamic-Pyruvic Transaminase
TB	Tuberculosis
TST	Tuberculosis Skin Test
TYCOM	Type Commander
VA	Veteran's Administration
WHO	World Health Organization