

CHAPTER 7

PREVENTIVE MEDICINE

Section A. General.

1. Scope.
2. Responsibilities.

Section B. Communicable Disease Control.

1. General.
2. Disease Outbreak.
3. Disease Alert Report.
4. Sexually Transmitted Infection (STI) Responsibilities.
5. STI Treatment.
6. STI Drug Prophylaxis.
7. STI Immunizations.
8. STI Reporting.

Disease Alert Reporting Chart Within 24 Hours

Disease Alert Reporting Chart Within 7 Days.

Section C. Immunizations.

1. General.
2. Unit Responsibilities.
3. Equipment and Certification Requirement.
4. Immunization Site Responsibilities.
5. Immunization on Reporting for Active Duty for Training.
6. Specific Vaccination Information.

Section D. Tuberculosis Prevention and Control Program.

1. Introduction.
2. Responsibilities.
3. Risk of Infection.
4. Environmental/Engineering Controls Against the Spread of Disease.
5. LTBI Screening Program.
6. Managing Personnel with Reactive TSTs.

7. Special Situations for Personnel on LTBI prophylaxis.
8. Managing Clinically Suspected Cases of Active TB.

CHAPTER 7

PREVENTIVE MEDICINE

Section A. General.

1. Scope.....	1
2. Responsibilities.....	1

CHAPTER 7 PREVENTIVE MEDICINE

Section A. General.

1. Scope.

The scope of preventive medicine involves all activities that prevent illness and disease, including immunizations; communicable disease control; and epidemiology.

2. Responsibilities.

a. The unit medical officer is responsible to the commanding officer for implementing all directives issued by the Commandant which relate to the health of members of the command. The MO shall:

- (1) Evaluate the command's health care capabilities to fulfill Occupational Medical Surveillance and Evaluation Program (OMSEP) requirements.
- (2) Develop and supervise an environmental health program to prevent disease and maintain the Commandant's established sanitation standards.
- (3) Monitor the incidence of disease or disability in personnel and, when indicated, in adjacent communities.
- (4) Use epidemiological methods to determine the cause of disease patterns, if there is an increase in incidence.

b. Preventive medicine technicians are individuals who are highly proficient in all aspects of preventive medicine. If assigned or available to a unit, the unit shall fully use their services.

c. The Preventive Medicine (PM) physician at Commandant (CG-1121) will provide policy recommendations and other consultation as needed to Commandant (CG-11), the MLC (k)s, and individual health care providers. The PM Physician will develop evidence-based policies for the control of disease of public health importance and will maintain liaison with civilian and public health (local, State, Federal) and military medical authorities to coordinate appropriate response to public health threats.

This page intentionally left blank.

CHAPTER 7

PREVENTIVE MEDICINE

Section B. Communicable Disease Control

1.	General.....	1
2.	Disease Outbreak.....	1
3.	Disease Alert Report.....	1
4.	Sexually Transmitted Infection (STI) Responsibilities	2
5.	STI Treatment	4
6.	STI Drug Prophylaxis	4
7.	STI Immunizations.....	4
8.	STI Reporting	4
	Disease Alert Reporting Chart Within 24 hours.....	6
	Disease Alert Reporting Chart Within 7 Days.....	7

CHAPTER 7

PREVENTIVE MEDICINE

Section B. Communicable Disease Control

1. General.

The health services department representative is responsible for complying with federal, state, and Coast Guard communicable disease reporting requirements. In order to have an effective communicable disease control program, health services department representatives should:

- a. Recognize communicable diseases (see Figures 7-B-1).
- b. Recommend preventive and control measures to the commanding officer.
- c. Submit required reports.
- d. Comply with state and local health department reporting requirements.

2. Disease Outbreak.

- a. Definition. An outbreak is defined as two or more linked cases with clinically compatible signs and symptoms of an infection in a given period of time in a specified location or two or more laboratory confirmed cases in a specified location within a given period of time or whatever is above normal in the population specified during a period of time.
- b. The health services department representative shall:
 - (1) Recognize outbreaks and establish a case definition.
 - (2) Investigate the source of the agent and how it spread.
 - (3) Recommend to commanding officer appropriate initial control/preventive measures.
 - (4) Send a Coast Guard intranet e-mail message to the cognizant MLC (K) with copy to Commandant (CG-1121).
 - (5) Contact Commandant (CG-1121) if assistance is needed at any of the aforementioned steps.
 - (6) Follow communicable disease policy guidance disseminated by the cognizant MLC (K) and/or CG Headquarters in the event of a bioterrorist threat or a natural or manmade communicable disease threat.

3. Disease Alert Report.

- a. Circumstances requiring reports.
 - (1) Any outbreak .

- (2) Any person diagnosed with any disease listed in Figures 7-B-1.
 - (3) Any epizootic (e.g. animal epidemic) transmissible from animals to man.
 - (4) Any quarantined Coast Guard vessel or aircraft (at a foreign port).
 - (5) Any condition deemed worthy of reporting by health services department personnel.
 - (6) Any reportable condition as mandated by the local / state health department.
- b. Report Format. Complete the [DAR](#), located on Commandant (CG-1121) Operational & Clinical Medicine webpage, and e-mail it to [HQS-DG-Disease Alert Report](#). If the disease is listed in Figure 7-B-1 you must contact the cognizant MLC (k) and Commandant (CG-1121) (202)-475-5172 via phone within 24 hours (see Figure 7-B-1) as well as e-mail.

- (1) All email correspondence should include the following or similar HIPAA statement:

This communication and its attachments are confidential to the Coast Guard Health Care Program and to the intended recipient(s). Information contained in this communication may be subject to the provisions of the Privacy Act of 1974 and Health Insurance Portability and Accountability Act. If you have received this email in error, please advise the sender immediately and delete the entire message together with all attachments. All unintended recipients are hereby notified that any use, distribution, copying or any other action regarding this email is strictly prohibited.

- (2) For outbreaks, include in the DAR:
 - (a) Case definition
 - (b) Number of persons meeting the case definition
 - (c) Time period over which the outbreak occurred
 - (d) Approximate number of people at risk of catching the disease;
 - (e) Control measures taken and their effectiveness

4. Sexually Transmitted Infection (STI) Responsibilities.

- a. Duties of the Health Services Department. Health services department shall provide a coordinated, comprehensive STI control program including:
 - (1) Education and prevention counseling of those at risk.
 - (2) Detection of asymptotically infected individuals.
 - (3) Effective diagnosis and treatment of infected individuals.
 - (4) Partner Counseling and Referral Services (PCRS) (formerly known as contact tracing).

- (5) Immunization of persons at risk for vaccine-preventable STIs.
 - (6) Proper annotation and maintenance of health records.
 - (7) Protection of confidentiality.
- b. Senior Medical Officer (SMO). The SMO oversees the medical management of the local STI control program; recommends STI control activities to the commanding officer; establishes and maintains liaison with local health authorities; and ensures confidentiality of the patient and his/her sexual partner(s).
 - c. Medical Officer (MO). The MO who initially evaluates the patient shall perform appropriate diagnostic evaluation based on current CDC guidelines. The MO must fill out SF-602, Syphilis Record, on all patients diagnosed with syphilis and file the SF-602 in the patient's medical record. All patients (beneficiaries / active duty / reservists) presenting for evaluation of a possible STI will be tested for serological evidence of syphilis infection. All active duty / reservist presenting for evaluation of a possible STI shall be tested for serological evidence of HIV infection. Additionally all active duty members will be tested for HIV every two years. Reservists are required to have a current HIV test within 2 years of the date called to active duty is the CAD is for 30 days or more. Refer to Chapter 3 Section C.20.b(7) for more details of the CG HIV program.
 - d. Health Services Technician (HS) or Preventive Medicine Technician (PMT). A HS or PMT assigned to administer the local STI control program should be pay grade E-5 or higher. They shall perform the following actions:
 - (1) Perform PCRS: PCRS is a set of activities intended to alert people exposed to STIs and facilitate appropriate, counseling, testing and treatment. Information about named partners shall be passed to the cognizant local or State public health function for partner notification. Valuable PCRS and STI resources are available on the internet from the Navy Environmental Health Center's Sexual Health and Responsibility Program (SHARP) at <http://www-nehc.med.navy.mil/hp/sharp>.
 - (2) Annotate and sign the SF-600 in each patient's medical record to indicate he or she interviewed the patient, discussed symptoms, complications, treatment, and the importance of partner notification(s).
 - (3) Determine whether a Test of Cure (TOC) is indicated for cases of gonorrhea or Chlamydia.
 - (a) Gonorrhea - Patients who have symptoms that persist after treatment should be evaluated by culture for N. gonorrhea, and any gonococci isolated should be tested for antimicrobial susceptibility.

- (b) Chlamydia - Patients do not need to be retested for Chlamydia after completing treatment with doxycycline or azithromycin, unless symptoms persist or reinfection is suspected. A TOC may be considered 3 weeks after completion with erythromycin.
 - (c) Active duty personnel will report to regular sick call for TOC. Place a suspense notice to check with the attending MO to ensure the patient receives TOC.
 - (d) Dependents and retired personnel will be given regular appointments for local STI treatment.
- (4) Complete a CDC 73.54, Contact Interview Record, on all STI patients and available contacts. Forms are available from the CDC at (404) 639-1819. Instructions on completing the Contact Interview Record are on the reverse side of the form.
 - (5) Cross reference all positive STI cases from the clinic laboratory log book to ensure all STI patients have been contacted and interviewed. This should be performed on the first work day of each week.
 - (6) Ensure security and confidentiality of all STI forms, reports and logs.
 - (7) Complete timely reporting. HIV / AIDS (HIV /AIDS reporting must be consistent with Chapter 3 Section C of this manual), Syphilis, gonorrhea, Chlamydia, and acute cases of hepatitis are reportable events in the Coast Guard. Syphilis, gonorrhea, and Chlamydia are reportable diseases in every state. The requirements for reporting other STIs differ by State. The National Coalition of STI Directors website (<http://www.ncsddc.org/programsites.htm>) has links to state specific STI reporting requirements.
5. STI Treatment.
MO should treat STIs according to the most current recommendation of either the Armed Forces Epidemiologic Board or the Centers for Disease Control (CDC).
 6. STI Drug Prophylaxis.
Drug prophylaxis for STI prevention is prohibited.
 7. STI Immunizations.
MO should review the immunization status of all patients presenting with a possible STI. All AD / reservists should receive Hepatitis A and Hepatitis B vaccines (unless vaccine series is complete). Other beneficiaries who seek evaluation for a possible STI should receive Hepatitis A and Hepatitis B based if indicated (based on current CDC guidelines).
 8. STI Reporting.

- a. Completing a CDC 73.54, Contact Interview Record.
- (1) Prepare original form (page 1 – white form, page 2- yellow form, page 3 – green form) as soon as possible after diagnosing a STI.
 - (2) Execute a separate form for each contact, in cases of multiple contacts.
 - (3) Enter the following data on the green copy ONLY:
 - (a) Under “Name,” enter also Social Security Number and rate or grade.
 - (b) Under “Home Address,” enter also the unit to which the patient is attached.
 - (4) Enter the interviewer's name and unit mailing address on the back of all sheets. The interviewer signs the original.
- b. Disposition.
- (1) Within CONUS the reporting unit retains the green copy on file and sends the original (page 1) and yellow copies to the state where the contact occurred. The reporting unit sends a xeroxed copy of the green form to MLC (k), which acts as the STI control officer for the area. MLC (k) will notify Commandant (CG-1121) upon receipt of the xeroxed copy. Log the disclosure to state health authorities in the Protected Health Information Management Tool (PHIMT) (see Chapter 14, section B.2.e of this manual).
 - (2) Outside CONUS the reporting unit sends the original (page 1) and yellow copies with a transmittal letter to the consular office closest to the contact site to ask that office to send the forms to the proper health authorities. Send a xeroxed copy of the green form to MLC (k) of the unit's home district indicating where the original and yellow copies were sent. The reporting unit files the green copy. Log the disclosure to state health authorities in the PHIMT.

FIGURE 7-B-1

Disease Alert Reporting Chart Within 24 Hours



PHONE COGNIZANT MLC (k) WITHIN 24 HOURS
SEND FOLLOW-UP EMAIL TO MLC (k) & Commandant (CG-1121) WITHIN 48 HOURS

Animal Bites	Diphtheria	Malaria	Smallpox
Anthrax	<i>E. coli</i> O157:H7	Measles	Syphilis
Arboviral Infection	Foodborne Outbreak	Meningococcal Disease	Tuberculosis
Botulism	<i>Haemophilus influenzae</i>	Pertussis	Tularemia
Brucellosis	Hantavirus Infection	Plague	Yellow Fever
CO Poisoning	Heat Exhaustion/Stroke	Poliomyelitis	UNUSUAL Disease/Cluster
Chemical Agent Exposure	Hemorrhagic Fever	Q Fever	
Cholera	Hepatitis A (acute)	Rabies	
Cold Weather Injury	HUS	SARS	

Potential agent of Bioterrorism

(HIV, AIDS, Suicide and Occupational Illness / Injury are reported through other mechanisms and not included in this list.)

FIGURE 7-B-2

Disease Alert Reporting Chart Within 7 Days



EMAIL COGNIZANT MLC (k) & Commandant (CG-1121) WITHIN 7 DAYS

Amebiasis	Influenza (AD ONLY)	Rubella
Campylobacteriosis	Lead Poisoning	Salmonellosis
Chancroid	Legionellosis	Schistosomiasis
<i>Chlamydia trachomatis</i>	Leishmaniasis	Shigellosis
Coccidioidomycosis	Leprosy	Streptococcal disease, Group A
Cryptosporidiosis	Leptospirosis	Tetanus
Cyclosporiasis	Lyme Disease	Toxic Shock Syndrome
Dengue Fever	cMRSA Infection	Trichinosis
Ehrlichiosis	Mumps	Trypanosomiasis
Filariasis	Psittacosis	Typhoid Fever
Giardiasis	Relapsing Fever	Typhus Fever
Gonorrhea	Rheumatic Fever (AD ONLY)	Urethritis (non-gonococcal)
Hepatitis B	Rift Valley Fever	Vaccine Adverse Events
Hepatitis C	Rocky Mountain Spotted Fever	Varicella (AD ONLY)

This Page Intentionally Left Blank

CHAPTER 7

PREVENTIVE MEDICINE

Section C. Immunizations.

1. General	1
2. Unit Responsibilities.	1
3. Equipment and Certification Requirement	1
4. Immunization Site Responsibilities.	1
5. Immunization on Reporting for Active Duty for Training	3
6. Specific Vaccination Information.....	4

This page intentionally left blank.

CHAPTER 7 PREVENTIVE MEDICINE

Section C. Immunizations.

1. General.

Immunizations and Chemoprophylaxis, [COMDTINST M6230.4 \(series\)](#), lists policy, procedure, and responsibility for immunizations and chemoprophylaxis. This section contains guidelines not specifically defined there.

2. Unit Responsibilities.

- a. Immunizing all individuals. Active duty and reserve unit commanding officers are responsible for immunizing all individuals under their purview and maintaining appropriate records of these immunizations. If local conditions warrant and pertinent justification supports, the cognizant MLC (k) may grant authority to deviate from specified immunization procedures on request.
- b. Unit commanding officers. Unit commanding officers will arrange local immunizations for their unit's members. If this is not possible, he or she will request assistance from the Coast Guard Medical Treatment Facility overseeing units in the geographic area.

3. Equipment and Certification Requirement.

- a. Immunization sites. All immunization sites must have the capability to administer emergency medical care if anaphylaxis or other allergic reactions occur. A designated Coast Guard medical officer must certify in writing that the registered nurse or HS selected to administer immunizations is qualified to do so because he or she has received instruction and displayed proficiency in these areas:
 - (1) Vaccine dosages.
 - (2) Injection techniques.
 - (3) Recognizing vaccine contraindications.
 - (4) Recognizing and treating allergic and vasovagal reactions resulting from the vaccination process.
 - (5) Proper use of anaphylaxis medications and related equipment (e.g., oxygen, airways).
 - (6) Verification the individual is currently certified in Basic Cardiac Life Support (BCLS).
- b. Supplies for immunization. The immunization site must have available: syringes with 1:1000 aqueous solution of epinephrine, emergency airways, oxygen, hand operated resuscitator, and intravenous (IV) fluids with an IV injection set.

4. Immunization Site Responsibilities.

- a. Where available, a medical officer shall be present when routine immunizations are given.
- b. Medical officer cannot be present. In the event a medical officer cannot be present, a registered nurse or HS3 or above can be certified to administer the immunization process of active duty and reserve personnel when the following guidelines and procedures are met:
 - (1) The designated Coast Guard medical officer who normally would oversee their independent activity must train and certify in writing registered nurses and HSs conducting immunizations in a medical officer's absence.
 - (2) An emergency equipped vehicle must be readily available to transport patients to a nearby (within 10 minutes) health care facility staffed with an Advance Cardiac Life Support (ACLS), certified physician or an EMS with ACLS capability must be within a 10-minute response time of the site.
 - (3) Hypovolemic shock often is present in cases of anaphylaxis. Therefore medical personnel must be ready and able to restore fluid to the central circulation. In anaphylaxis treatment, epinephrine administration, airway management, summoning help are critical steps toward the treatment of this condition.
- c. Review and log immunizations. The individual(s) administering the immunizations shall review the SF-601(Immunization Record) and the Medical Readiness System (MRS) immunization section. Only a medical officer has authority to immunize persons sensitive to an immunizing agent. The unit health record custodian or HS will ensure proper entries are made on each immunized person's SF-601 and in MRS.
- d. Emergency immunizations. In some clinical situations, the medical indication may be to immunize even though the circumstances above cannot be met (e.g., tetanus toxoid for wound prophylaxis, gamma globulin for hepatitis A exposure, etc.). Such incidents commonly occur at sea and remote units or during time-sensitive situations (SAR, etc.). If the medical benefits outweigh the chance of a serious allergic reaction, take every available precaution possible, and administer the vaccine. When available, obtain radio, telephone, or message advice from the Medical Officer.
- e. Adverse reaction. If an adverse reaction to a vaccine is suspected by anyone, including the vaccinee, the facility shall notify the Vaccine Adverse Event Reporting System (VAERS) using form VAERS-1. The likelihood of a causal relationship between the observed physical signs or symptoms and the vaccine does NOT need to be verified by a MO or anyone else. This reporting system is for anyone who suspects a vaccine adverse reaction. The VAERS form is obtained from the FDA on-line at http://vaers.hhs.gov/pdf/vaers_form.pdf or by calling 1-800-822-7967. Units providing vaccinations shall maintain a supply of these forms for vaccinees who request them. Alternatively, file the VAERS online at

<https://secure.vaers.org/scripts/VaersDataEntry.cfm>. If filing online, be sure to print a copy of the form before clicking on the “submit” button. A copy of each submitted VAERS-1 will be forwarded to CG-1121. Log the disclosure to VAERS in the Protected Health Information Management Tool (PHIMT); see Chapter 14, section B.2.e of this manual.

- f. Every health care provider who administers vaccines shall provide a Vaccine Information Sheet (VIS) if available from the Centers for Disease Control and Prevention (CDC). A current list of the vaccines for which VIS’s are available and the VIS’s themselves are found at <http://www.cdc.gov/nip/publications/VIS>. The list includes vaccines covered by the National Childhood Vaccine Injury Act, as well as several others. The VIS's are also available from the CDC, National Immunization Hotline, at telephone number (800) 232-2522 or at <http://www.cdc.gov/nip/publications/VIS/default.htm>.
 - g. Per the National Childhood Vaccine Injury Act (NCVIA) of 1986, health care providers are not required to obtain the signature of the vaccine recipient, parent or legal guardian acknowledging receipt of the VIS. However, to document that the VIS was given, health care providers must note in the patient's permanent medical record (1) the date printed on the VIS and (2) the date the VIS is given to the patient or legal guardian. In addition, the NCVIA requires, for all vaccines, that health care providers document in the patient's permanent medical record the following: (1) date the vaccine was given, (2) the vaccine manufacturer and lot number and (3) the name and address of the health care provider administering the vaccine. For all beneficiaries, the health care provider will make a notation on the SF-600 stating that the vaccine recipient or legal guardian/representative has been given information on the vaccine(s) prior to the vaccine(s) being given, if applicable. For all vaccines, facilities administering vaccines must record the manufacturer and lot number of the vaccine, and the name, address and title of the person administering the vaccine in the recipient's health record and if requested in the service member’s International Certificate of Vaccination (PHS-731).
5. Immunization on Reporting for Active Duty for Training.
- a. When a member reports for active duty training, the receiving unit shall review the individual's SF-601 and MRS entries for completeness, administer any delinquent immunizations whenever possible, and enter the information in the SF-601 and MRS.
 - b. The individual's Reserve unit shall give the member a re-immunization schedule for the following year if one is needed for that period.

6. Specific Vaccination Information

- a. Coast Guard policy. Coast Guard policy concerning immunizations follows the recommendations of the CDC and ACIP, unless there is a military relevant reason to do otherwise. Any immunizing agent licensed by the FDA or DHHS may be used. Privileged health care providers may make clinical decisions for individual beneficiaries to customize medical care to respond to an individual clinical situation.
- b. Anthrax and Smallpox. Anthrax and Smallpox vaccination policy can be located on the Operational Medicine website at <http://www.uscg.mil/hq/g-w/g-wk/wkh/cbr-d/index.htm>.
- c. Detailed information. Detailed information on adult vaccines (e.g. dose, route, interval) can be found on the Operational Medicine website at <http://www.uscg.mil/hq/g-w/g-wk/wkh/index%202.htm> (under the Immunization Chart link).

CHAPTER 7

PREVENTIVE MEDICINE

Section D. Tuberculosis Prevention and Control Program.

1.	Introduction.....	1
2.	Responsibilities.....	2
3.	Risk of Infection.....	2
4.	Environmental/Engineering Controls Against the Spread of Disease.....	3
5.	LTBI Screening Program.....	4
6.	Managing Personnel with Reactive TSTs.....	9
7.	Special Situations for Personnel on LTBI Prophylaxis.....	9
8.	Managing Clinically Suspected Cases of Active TB.....	10

CHAPTER 7 PREVENTIVE MEDICINE

Section D. Tuberculosis Prevention and Control Program.

1. Introduction.

- a. Disease description. Tuberculosis (TB) is a contagious disease caused by *Mycobacterium tuberculosis*, or the “tubercle bacillus.” It is a serious disease that causes lung damage. However, it can be prevented, and it can be treated.
- b. Transmission. TB is transmitted mainly by tiny particles (1-5 microns) called droplet nuclei. A person with active pulmonary tuberculosis can infect others by coughing, speaking, sneezing, or singing. The likelihood of disease transmission depends upon the infectiousness of the person with TB, the environment in which the exposure occurred, the duration of the exposure, and the virulence of the organism.
- c. Pathogenesis.
 - (1) Inhaled tubercle bacilli that reach the depths of the lungs (alveoli) are mostly destroyed there by the immune system.
 - (2) Some bacilli may get through the first line of defense and travel to other parts of the body. At this time the TB skin test (TST) would be positive, and a person is considered infected with what is called **latent TB infection (LTBI)**. The immune system is usually able to prevent further spread of the bacilli. Persons with LTBI cannot spread the disease.
 - (3) In some people, bacilli overcome the immune defenses and continue to multiply. This results in progression to **active TB disease**, which is clinically evident by chest radiograph (x-ray), culture, or by signs and symptoms of extra pulmonary TB. Persons with active TB disease **CAN** spread the disease. Only 10 percent of infected persons with normal immune systems will develop active TB disease at some point in their lives. Some medical conditions increase the risk that TB infection will progress to disease.
 - (4) Active TB disease is usually in the lungs, but may occur in other parts of the body. Progression can occur many years after infection, but is most likely in the first 2 years after infection.
- d. Drug Resistance. Most tubercle bacilli will be killed by appropriate medications. However, drug resistant bacilli have developed because people did not take TB medications as prescribed. To prevent development of drug resistant TB, it is sometimes desirable to institute directly observed

therapy (DOT), where the patient is required to go to the clinic and be watched as s/he takes each dose.

2. Responsibilities.

- a. Commandant (CG-11). Commandant (CG-11) updates TB policy based on current disease threat and occupational risk information.
- b. Healthcare personnel. Healthcare personnel shall:
 - (1) Perform TB testing and treatment activities.
 - (2) Assure accurate and timely recording of testing and results in the Medical Readiness System (MRS).
- c. Unit commanders. Unit commanders shall:
 - (1) Provide appropriate training and equipment for preventive measures against TB infection.
 - (2) Ensure infected personnel receive timely treatment and are compliant with treatment, including DOT, if so ordered by medical personnel.

3. Risk of Infection.

- a. General. A person's risk of infection depends upon the level, nature and intensity of exposure.
 - (1) Persons at the highest risk are **close contacts**—those with repeated, prolonged, close, indoor contact with a person with active pulmonary TB. Examples are family members living in the same household with a person with active pulmonary TB and health care workers routinely caring for TB patients.
 - (2) A **casual contact** is a person who has had exposure but is unlikely to become infected. An example is someone with one or a few brief, face to face interactions with someone with active pulmonary TB.
- b. Increased risk. The following groups are at increased risk of TB infection:
 - (1) Close contacts of persons known or suspected to have active TB (sharing the same household or other enclosed environments).
 - (2) Foreign-born persons from areas where TB is common (Asia, Africa, Latin America, Eastern Europe, Russia).
 - (3) Residents and employees of high-risk congregate settings (e.g. jails, nursing homes, homeless shelters).

- (4) Medically underserved, low-income populations.
- (5) Children exposed to adults in high-risk categories.
- (6) Persons who inject illicit drugs.
- (7) Health care workers who routinely serve the high-risk clients listed in paragraphs (1) through (6).

c. CG personnel generally DO NOT fit into any of the high risk categories.

- (1) In nearly all tactical/operational situations encountered by CG personnel, TB is not easily transmitted. Coast Guard encounters with potentially infected persons are generally either in open air, or for time periods too short or at a distance too far to make transmission likely.
- (2) No cases of active TB have been reported in CG members in the history of the CG medical surveillance program, nor have any CG cases of active TB disease been treated in a DoD MTF since at least 1994, when the Defense Medical Surveillance System began keeping track of TB cases.
- (3) In recent years Commandant (CG-1121) has investigated several clusters of positive TSTs. In no instance was any active TB disease found. Nor was any epidemiological tie to a common source of possible infection. This means the clusters were unlikely to be true “outbreaks” of TB infection (although all members with “positive tests” had to continue treatment).
- (4) Therefore, CG personnel after basic training will generally be considered at **low risk** for infection with *Mycobacterium tuberculosis*.

4. Environmental/engineering controls against the spread of disease.

a. Never underestimate the importance of personal hygiene, including handwashing.

b. Personal protective equipment (PPE).

- (1) Special PPE, e.g., masks, gloves, or gowns, are not required for routine limited contact with active pulmonary TB.
- (2) CG personnel involved in operations that present prolonged, close contact situations with persons known or suspected to have active pulmonary TB may warrant the use of respiratory protection devices (RPD). The minimum RPD for wearer safety is a properly fitting, NIOSH-approved, N95 respirator. Surgical masks are insufficient to protect the wearer against acquiring TB infection. Worn by an infected

person, however, surgical masks can help contain the droplets, thereby reducing the risk of transmission.

(3) All CG personnel using any PPE will find guidance in, and comply with, the following manual: [Technical Guide: Practices for Respiratory Protection, COMDINST M6260.2 \(series\)](#).

- c. Air Circulation. At least 6 air exchanges per hour (ACH) are required to reduce concentrations of droplet nuclei in the air in an enclosed space; higher ACH rates eliminate more bacteria. If possible 12 ACH or more is recommended. Recirculated air should filter through fixed HEPA filters. Fresh or filtered air should be provided in optimum airflow patterns that facilitate an even distribution of air.
- d. Handling High-Risk Populations. When transporting or otherwise in a confined space with a person known or suspected to have active TB, take these precautions:
 - (1) Have the patient wear a surgical mask if s/he can tolerate one.
 - (2) Take measures to increase airflow within the enclosed space. Vent air to the outside whenever possible.
 - (3) Isolate suspected TB patients if conditions permit, and avoid unnecessary close contact
 - (4) Emergency Medical Technicians (EMTs) should wear N95 respirators when working with persons demonstrating clinical signs of active pulmonary TB.
- e. Decontamination. Decontaminating spaces occupied by persons with active TB: Contact Commandant (CG- 1133) or MLC (kse) personnel for instructions.

5. LTBI Screening program.

- a. High risk groups. TB testing should be targeted at those who are at high risk for infection or at high risk for active TB disease once infected. Persons who are not at high risk or who would not be candidates for treatment should not be tested.
- b. Non high risk groups. In groups that are not at high risk for TB, positive tests may not represent true TB infections. Several factors can cause false positive results, but no positive reaction shall be considered false positive in the absence of Commandant (CG-112) epidemiological investigation.
- c. Risks. Since TB treatment, as for any medical treatment, is not without toxicity risks, careful consideration should be given to the decision to TB

test in the first place. A decision to test implies a decision to treat, with the coincident toxic, potentially even fatal, risks of TB medication use.

d. Current screening policy is based on:

- (1) The possible existence of TB infection risk factors prior to entry on active duty.
- (2) The premise that persons should be TB disease-free throughout their military careers.
- (3) The epidemiologically supportable assumption that Coast Guard members are at low risk of infection with TB.

e. When to screen.

- (1) Initial TB screening is required for any person entering initial active duty for 30 days or more and any other active duty member whose records contain no report of a completed TST.
- (2) Periodic screening.
 - (a) No group of CG personnel is at high risk. Even health care personnel are not at increased risk unless they work in facilities that **regularly** care for persons with active TB disease. Nor are persons whose duties include alien migrant interdiction or marine safety operations. Therefore, **periodic screening for TB is not warranted.**
 - (b) Personnel whose last recorded TST reaction was reactive will be screened annually for indicators of active disease. This screening can occur during any medical encounter. It involves reviewing the medical record and asking the member about the following: persistent, productive cough (especially coughing up blood); chest pain; fever, chill or night sweats; appetite loss; and unintended weight loss.
 - (c) Routine evaluation of old TST reactors by chest radiograph is not authorized nor warranted.
- (3) Clinical suspicion. A Medical officer may order an individual TST on a patient with risk factors listed in Paragraph 3.b. or a TST and/or chest radiograph on a patient with clinical signs/symptoms of active TB disease.
- (4) Separation from Service. Those individuals whose last test was non-reactive shall have a TST as part of their separation process. A chest radiograph will be done for a separation physical only if the individual

has a confirmed positive TST. Results of the TST or chest radiograph must be evaluated and recorded in the health record prior to separation.

f. What Screening Test?

1. The TST, sometimes called the Mantoux test, is based on hypersensitivity-type immune reaction to tuberculin. Tuberculin, also called Purified Protein Derivative (PPD), is a substance derived from *Mycobacterium tuberculosis*, and it is currently the only tuberculin **skin** test approved for CG use. Multiple puncture tuberculin tests (e.g., Tine tests) are not authorized.
2. Routine TSTs are conducted using 0.1 ml of PPD containing 5 Tuberculin Units. The disposable 1 ml tuberculin syringe graduated in 0.1 ml intervals and fitted with a 25-gauge 5/8-inch needle shall be used to administer the TST.
3. The new serological test for TB, Quantiferon-TB Gold, approved by the FDA in December 2004, will replace the TST as the primary method for routine TB screening once it is readily available.
4. Chest radiographs, as screening for TB, will be obtained only at the time a new TST reactor is identified or when active disease is suspected by clinical signs and symptoms.

g. Administering TST. For a review on how to place the TST, see <http://www.cdc.gov/nchstp/tb/pubs/Mantoux/part1.htm>.

h. Measuring and Interpreting Test Reactions.

1. For review of measuring the results see <http://www.cdc.gov/nchstp/tb/pubs/Mantoux/part2.htm>.
2. Reminders:
 - (a) The TST site should be examined between 48 to 72 hours after the TST was placed. The site should not be rubbed prior to this time, as that can increase the chances of a false positive reading. Personnel who do not return at the proper time to have the skin test interpreted must be retested.
 - (b) The reaction is best read by lightly passing the finger over the TST site feeling for induration, which may not produce a visible elevation of the skin. **Induration** is a firm, hardened, usually raised area of soft tissue congestion. Induration must be distinguished from edema and erythema. **Edema** is a soft swelling, and **erythema** is redness due to inflammation. In the

absence of induration, neither edema nor erythema, alone or in combination, indicate a tuberculin reaction.

- (c) The tuberculin reaction is a measurement of the induration (not erythema or edema) measured in millimeters (mm) at the widest diameter perpendicular to the long axis of the forearm (i.e., across the forearm). The absence of induration is noted as "zero mm," rather than simply a negative reaction.
- (d) Occasionally the reaction is severe (e.g., grossly vesiculated). A medical officer must evaluate this type of reaction, and the member should be warned about possible secondary bacterial infection from scratching the reaction.

i. Recording Results.

- (1) To record the result, hand-enter this information under Sensitivity Tests on the SF-601:
 - (a) Date, type of tuberculin, lot number, strength and induration length.
 - (b) Type of tuberculin (tubersol or aplisol; the former is recommended), its strength or dilution (e.g., TST 5 TU), and the resulting diameter of induration expressed in millimeters. If induration is present, use Arabic numerals to record the widest diameter. Also measure and record any vesiculation.
 - (c) If the test is positive (see paragraph 5. j below), write in red ink "TST converter" on the Sensitivity Sticker and the Problem Summary List. Using rubber stamps or automatic imprinting devices to record results and recording results as "negative" are prohibited.
 - (d) If the person does not return for a reading within the prescribed time frame, never record the TST as "zero mm." Each time a person fails to return for timely reading, document the SF-601 with "no reading done" and the date.
- (2) Enter the date of the TST test and the result into the appropriate screen of MRS.

j. Interpreting Skin Test Readings.

- (1) For initial testing, (basic training and other entry points) all persons will complete a written TB risk screening form. Their reactions will be

evaluated according to their risk factors identified on the screening form.

- (2) Although skin testing programs should be conducted only among high-risk groups, certain individuals may require TST for employment or school attendance. The CDC and American Thoracic Society recommend a risk assessment for a reactive TST. The following criteria shall be used for Classifying Positive TST Reactions:

(a) **Reaction of ≥ 5 mm of induration is considered positive in:**

- 1 HIV-infected persons.
- 2 Recent contacts of infectious TB cases.
- 3 Persons with fibrotic changes on chest radiograph consistent with prior TB.
- 4 Organ transplant recipients.
- 5 Persons who are immunosuppressed for other reasons (e.g., taking the equivalent of >15 mg/day of prednisone for 1 month or more, taking TNF- α antagonists).

(b) **Reaction of ≥ 10 mm of induration is considered positive in:**

- 1 Recent immigrants (within last 5 years) from high-prevalence countries.
- 2 Injection drug users.
- 3 Residents or employees of high-risk congregate settings.
- 4 Mycobacteriology laboratory personnel.
- 5 Children < 4 years of age, or children or adolescents exposed to adults at high risk.
- 6 Persons with clinical conditions previously mentioned.

(c) **Reaction of > 15 mm of induration is considered positive in:**

- 1 Persons with no known risk factors for TB.

- (3) There are two categories of positive TSTs, and the distinction between them has treatment implications.

- (a) A **Reactive** TST is one that exceeds the size cut-off for a positive test. It indicates that the person tested is considered infected with TB.

- (b) A **TST Conversion** is a reaction that has increased from what is considered non-reactive to reactive within a span of two years. The medical record must contain documentation of the non-reactive test at or less than two years prior to the reactive test.
 - (c) Most CG testing situations that reveal positive tests will be reactions rather than conversions.
- 6. Managing Personnel with reactive TSTs.
 - a. Evaluate for Tuberculosis.
 - (1) Initial Examination. Medical history, physical examination and chest radiograph.
 - (2) Further Examination. A medical officer or a civilian physician must evaluate more thoroughly those individuals whose findings suggest active TB.
 - b. Managing Tuberculin Reactors without Evidence of Active TB.
 - (1) Perform HIV antibody testing (via Viromed) and other STD testing on all newly identified active duty tuberculin reactors. Counsel TST reactive civilian employees and dependents about HIV risk behaviors and offer them HIV serological screening.
 - (2) Prophylaxis is intended to prevent latent infections from progressing to clinically active disease. Medical personnel will follow the standard of care for treatment of LTBI. See <http://www.cdc.gov/mmwr/PDF/RR/RR4906.pdf>
 - (3) Patient Education. The health services representative must ensure the patient understands the meaning of the skin test result or TB exposure, Isoniazid (INH) chemoprophylaxis risks (hepatitis, drug fever, severe rash, etc.) and benefits, and the danger of alcohol or excessive acetaminophen consumption while taking INH. The necessity for faithful adherence to the course of treatment cannot be too strongly stressed. A notation of the counseling offered shall be made on an SF-600 in the medical record.
- 7. Special Situations for personnel on LTBI prophylaxis.
 - a. Persons Leaving the Service While on Chemoprophylaxis.
 - (1) Members who leave active duty prior to completing chemoprophylaxis shall be advised that continued treatment is necessary. Retirees may receive follow-up at most Uniformed Services Medical Treatment Facilities.

- (2) Members who are discharged or released to inactive duty prior to completing INH chemoprophylaxis may receive follow up by the Veterans Administration, county health department, private physicians, etc. To facilitate follow-up, personnel shall be provided with a statement signed by a medical officer containing the date treatment began the type and dosage of prescribed medications, course of therapy, and the present status. The local Health Department where the individual plans to reside should be notified.
 - b. Personnel transferring duty stations during treatment. Personnel shall be provided with a statement signed by a medical officer, containing the date treatment began, the type and dosage of prescribed medications, course of therapy, and the present status. Member shall ensure that they provide this information to their new medical officer (CG, DoD or civilian) ASAP after arrival at their new duty station.
 - c. Exposure to Drug-resistant TB. Consult with Commandant (CG-1121) before starting prophylaxis for persons known to be exposed to patients with drug-resistant strains of TB.
 - d. Children. A pediatrician or medical officer with training in pediatrics must follow children receiving TB prophylaxis.
 - e. Pregnant Women. Complete the same initial procedures for adults except DO NOT PERFORM A RADIOGRAPH unless a clinical indication of pulmonary disease exists. Consult the patient's obstetrician. Generally, defer treatment until after delivery or breast feeding. Place the patient's name in a "tickler" so that she can be contacted after her pregnancy.
 - f. Aviation Personnel.
 - (1) Personnel on flying status shall be grounded for the first seven days of chemoprophylaxis because of the slight risk (less than 1%) of convulsions among persons taking INH. At the end of seven days of treatment, flight surgeon must be consulted to return the member to flying status.
 - (2) A flight surgeon shall evaluate aviation personnel receiving INH monthly to review possible adverse reactions.
 - (3) Aviation personnel should be considered for grounding if, at any time during treatment, liver function test are significantly abnormal or symptoms of liver dysfunction appear.
8. Managing Clinically Suspected Cases of Active TB.
When a patient active duty or civilian beneficiary) is evaluated and suspected of having TB:
- a. Evaluate for Tuberculosis. See Paragraph 6.a. above.

- b. Transfer to MTF. Expeditiously refer the patient, including those initially admitted to civilian medical facilities, to the nearest USMTF. If possible, refer before beginning definitive treatment.
- c. Specific instructions. Specific instructions on contact tracing, decontaminating, and medical management will be provided by Commandant (CG-1121) when the disease alert report is called in.
- d. Public Health Reporting.
 - (1) Submit a Disease Alert Report to Commandant (CG-1121) and report to local health authorities.
 - (2) The Health Services Division Chief of the medical treatment facility where the diagnosis of active TB is suspected or established shall notify the patient's commanding officer within 48 hours. The notification shall include the date that the diagnosis was established or suspected and the probability that the patient is infectious. If, in the case of suspected active TB, the diagnosis of TB is subsequently ruled out, a message to that effect must be sent to both the patient's commanding officer and to the address of the Disease Alert Report, immediately.
 - (3) Civilian Personnel. If a civilian employee under Coast Guard cognizance is discovered to have active TB, the medical administrative officer or the medical officer of the activity shall make arrangements for contact investigation of close work associates. Local public health authorities shall be notified. Coast Guard personnel who are close contacts of the employee shall have detailed entries made in their medical records and receive appropriate follow-up.

This page intentionally left blank.