THE ASSISTANT SECRETARY OF DEFENSE

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WASHINGTON, DC 20301-1200

HEALTH AFFAIRS

20 April 2012

MEMORANDUM FOR ASSISTANT SECRETARY OF THE ARMY (MANPOWER AND RESERVE AFFAIRS)
ASSISTANT SECRETARY OF THE NAVY (MANPOWER AND RESERVE AFFAIRS)
ASSISTANT SECRETARY OF THE AIR FORCE (MANPOWER AND RESERVE AFFAIRS)
DIRECTOR OF THE JOINT STAFF

SUBJECT: Guideline for Tuberculosis Screening and Testing

References: (a) Department of Defense Instruction (DoDI) 6130.03, "Medical Standards for Appointment, Enlistment, or Induction in the Military Services," April 28, 2010
(b) DoDI 6490.03, "Deployment Health," August 11, 2006
(c) DoD 6055.05-M, "Occupational Medical Surveillance Manual," May 2, 2007
(d) Centers for Disease Control and Prevention (CDC) Morbidity and Mortality Weekly Report (MMWR) Recommendations and Reports (RR) 59 RR-05, "2010 Jun 25—Updated Guidelines for Using Interferon Gamma Release Assays to Detect *Mycobacterium tuberculosis* Infection," United States, 2010
(e) CDC MMWR 54 RR-17, "2005 Dec 30—Guidelines for Preventing the Transmission of *Mycobacterium tuberculosis* in Health Care Settings," 2005
(f) CDC Publication, "2010—Latent Tuberculosis Infection: A Guide for Primary Health Care Providers"

Tuberculosis (TB) is a disease caused by a bacterium called *Mycobacterium tuberculosis*. TB is uncommon in the U.S.; in 2010, the incidence of active TB was 3.6 per 100,000 person-years, the lowest ever recorded. The prevalence of latent tuberculosis infection (LTBI) in the U.S. is estimated at 4 percent overall, but is 1 percent in military-aged groups. The principal risk factors for acquiring TB infection are foreign-born persons from areas that have a high incidence of active tuberculosis, a weak immune system, prolonged community residence in a TB endemic country, or residing with someone from a TB endemic country, exposure to a known infectious TB disease, or working or residing with people who are at high risk for TB in facilities or institutions such as hospitals, homeless shelters, correctional facilities, nursing homes, and residential homes for those with human immunodeficiency virus. As the prevalence of TB in most military members is quite low, testing persons at low risk of disease should be avoided and replaced with targeted testing based on risk assessment, usually with a simple questionnaire (see attached sample questionnaire).

Deployment to TB endemic countries, even for periods in excess of a year, has not been shown to be a risk factor for TB for most average-risk Service members (including the Korean

War, Vietnam War, and the current conflicts of Operation ENDURING FREEDOM, Operation IRAQI FREEDOM, and OPERATION NEW DAWN). Prisoners of war are the only group to demonstrate higher rates of active TB after military deployment. Based on civilian studies, other groups assumed to be at increased risk are health care workers (HCWs) caring for TB patients at hospitals and individuals working at prisons and detainee facilities where TB may be present. Nearly all military medical treatment facilities (MTFs) in the Military Health System are considered low risk according to CDC and World Health Organization standards, found in Reference (e). However, MTFs should reassess their risk status annually, in accordance with Reference (e).

Given the low prevalence of LTBI and very low incidence of TB in the U.S., routine testing of individuals (including most low-risk HCWs) presents a false impression of risk. Targeted testing of key groups, following identification using a questionnaire to screen for risk factors, is preferred over universal testing. In the setting of low prevalence, universal testing results in significant numbers of false positives (more than 50 percent) such as the 1 percent prevalence of LTBI in military members. Treatment for LTBI has a small risk of serious liver inflammation or hepatitis; reducing the number of individuals tested reduces the risk that false positives will lead to unnecessary treatment. Targeted testing could reduce the number of tests by 80 to 90 percent.

Because accessions come from widely diverse geographic backgrounds, the Services should determine the need for tuberculin skin tests for accessions while Service members are at the training base, based on the needs of the specific accessions environment and operational mission requirements. DoD will implement targeted testing rather than universal testing where possible, based on Service-specific mission requirements, for recruits and new accessions, HCWs, recent deployers, and Service members who are retiring. Targeted testing will use questions similar to those found in the attached questionnaire. The point of contact for this action is LTC Jennifer Cummings. LTC Cummings may be reached at (703) 575-2696, or Jennifer.Cummings@tma.osd.mil.

Jonathan Woodson, M.D.

Attachment:
As stated

cc:
Surgeon General of the Army
Surgeon General of the Navy
Surgeon General of the Air Force
Director, Marine Corps Staff
Director, Health, Safety and Work-Life of the Coast Guard

SAMPLE TUBERCULOSIS QUESTIONNAIRE:

(Persons with any of the following risk factors (i.e., Yes responses) are candidates for tuberculin testing, unless there is written documentation of a previous positive Tuberculin Skin Test or Quantiferon blood test.)

1. Were you born outside the U.S.? □ Yes □ No

   a. If yes, what country? _____

   b. How long did you live in this country before moving to the U.S.?

      _____ years

2. Have you lived with someone who was born outside of the U.S.? □ Yes □ No
   If yes, what country? _____

3. Have you ever lived or worked in an institutional facility such as drug treatment center, detention facility, or homeless shelter? □ Yes □ No

4. Have you had recent close (in the same room, such as in a house) or prolonged contact with someone with active infectious tuberculosis disease? Note: outdoor contact or large open buildings are generally not a risk (unless within a few feet for several hours)

   □ Yes □ No

5. Have you ever lived within a local community outside of the U.S.? □ Yes □ No
   If yes, what country? _____

6. Have you ever worked overseas in a hospital setting or in a U.S. hospital primarily caring for persons born outside the U.S.? □ Yes □ No
   Are you a healthcare professional, such as an Infectious Disease specialist, who may in the course of providing care be exposed to active TB cases? □ Yes □ No

   Additional Information Needed:

   Have you ever been told you had tuberculosis or TB? □ Yes □ No

   Have you ever had a positive test for tuberculosis or TB? □ Yes □ No

   a. If yes for either question, did you receive treatment? □ Yes □ No

   b. If you received treatment, what was the treatment?

      _____

      How long did you have to take the treatment? _____ years _____ months

Note to Healthcare Staff / Clinic:

If any of the countries documented on the front of the questionnaire are on the list below, the patient should be tested for tuberculosis.

The following countries have been listed as having > 20 cases TB / 100,000 population:

Afghanistan
Algeria
Angola
Anguilla
Argentina
Armenia
Azerbaijan
Bahrain
Bangladesh
Belarus
Belize
Benin
Bhutan
Bolivia
Bosnia and Herzegovina
Botswana
Brazil
British Virgin Islands
Brunei Darussalam
Bulgaria
Burkina Faso
Burundi
Cambodia
Cameroon
Cape Verde
Central African Republic
Chad
China
China, Hong Kong SAR
China, Macao SAR
Colombia
Comoros
Congo
Congo - DR
Cook Islands
Cote d'Ivoire
Croatia
Djibouti
Dominican Republic
Ecuador
Egypt
El Salvador
Equatorial Guinea
Eritrea
Estonia
Ethiopia
Fiji
French Polynesia
Gabon
Gambia
Georgia
Ghana
Guam
Guatemala
Guinea
Guinea-Bissau
Guyana
Haiti
Honduras
India
Indonesia
Iran
Iraq
Japan
Kazakhstan
Kenya
Kiribati
Korea - DR
Korea - Rep of
Kuwait
Kyrgyzstan
Lao PDR
Latvia
Lesotho
Liberia
Libya
Lithuania
Macedonia
Madagascar
Malawi
Malaysia
Maldives
Mali
Marshall Islands
Mauritania
Mauritius
Micronesia - Fed States
Mexico
Moldova
Mongolia
Montenegro
Montserrat
Morocco
Mozambique
Myanmar
N. Mariana Islands
Namibia
Nauru
Nepal
New Caledonia
Nicaragua
Niger
Nigeria
Pakistan
Palau
Panama
Papua New Guinea
Paraguay
Peru
Philippines
Poland
Portugal
Qatar
Romania
Russian Federation
Rwanda
Saint Vincent & Grenadines
Samoa
Sao Tome and Principe
Saudi Arabia
Senegal
Serbia
Serbia & Montenegro
Seychelles
Sierra Leone
Singapore
Solomon Islands
Somalia
South Africa
Sri Lanka
Sudan
Suriname
Swaziland
Syrian Arab Republic
Tajikistan
Tanzania
Thailand
Timor-Leste
Togo
Tonga
Trinidad and Tobago
Tunisia
Turkey
Turkmenistan
Turks and Caicos Islands
Tuvalu
Uganda
Ukraine
Uruguay
Uzbekistan
Vanuatu
Venezuela
Viet Nam
Wallis and Futuna Islands
West Bank and Gaza Strip
Yemen
Zambia
Zimbabwe

Source: World Health Organization Global Tuberculosis Control, WHO Report 2010, Countries with Tuberculosis incidence rates of > 20 cases per 100,000 persons. Note (*) fewer than 50% of the regions within the country have rates >20 cases/100,000 persons.