

TUBERCULOSIS

Includes Pulmonary and Extra-Pulmonary Infection

Background

This case definition was developed by the Armed Forces Health Surveillance Branch (AFHSB) and the Uniformed Services University of the Health Sciences (USUHS) for the purpose of conducting two special epidemiological studies on active tuberculosis in the U.S. military.^{1,2} Both studies examined rates of pulmonary and extra-pulmonary tuberculosis.

Clinical Description

Tuberculosis is a chronic bacterial infection caused by *Mycobacterium tuberculosis*, characterized pathologically by the formation of granulomas. The most common site of infection is the lung, but other organs may be involved. Specific symptoms of pulmonary tuberculosis include cough, chest pain and hemoptysis. Systemic symptoms also include fever, chills, night sweats, fatigue, and weight loss.³

Case Definition and Incidence Rules

For surveillance purposes, a case of tuberculosis is defined by:

- *One hospitalization* with any of the defining diagnoses of active tuberculosis (see ICD9 and ICD10 code lists below) in the *primary* diagnostic position; or
- One record of a reportable medical event (RME) of pulmonary tuberculosis.

Incidence rules:

For individuals who meet the case definition:

- The incidence date is considered the date of the reportable medical event or the first hospitalization that includes a diagnosis of tuberculosis.
- An individual is considered an incident case only *once per lifetime*.

Exclusions:

- None

¹ Mancuso, J D, Tobler, S K, Eick, A A, Olsen, C H. An evaluation of the completeness and accuracy of active tuberculosis reporting in the United States military. *Int J Tuberc Lung Dis* 2010; 14(10): 1-6

² Mancuso, J D, Tobler, S K, Eick, A A, Keep, L W. Active tuberculosis and recent overseas deployment in the U.S. Military. *Am J Prev Med* 2010; 39(2): 157-163

³ Braunwald, E., Fauci, A., Longo, D. et al. 2008. *Harrison's Principles of Internal Medicine*. 17th ed. United States: McGraw-Hill Professional.



Codes

The following ICD9 and ICD10 codes are included in the case definition:

Respiratory Tuberculosis

Condition	ICD-10-CM Codes	ICD-9-CM Codes
Lung	<i>A15.0 (tuberculosis of lung)</i>	<i>011.0 (tuberculosis of lung, infiltrative)</i> <ul style="list-style-type: none"> - 011.00 (site unspecified) - 011.01 (bacteriological or histological examination not done) - 011.02 (bacteriological or histological examination unknown [at present]). - 011.03 (tubercle bacilli found, in sputum, by microscopy) - 011.04 (tubercle bacilli not found, in sputum, by microscopy, but found by bacterial culture) - 011.05 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 011.06 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])
		<i>011.1 (tuberculosis of lung, nodular)</i> <ul style="list-style-type: none"> - 011.10 (site unspecified) - 011.11 (bacteriological or histological examination not done) - 011.12 (bacteriological or histological examination unknown [at present]). - 011.13 (tubercle bacilli found, in sputum, by microscopy) - 011.14 (tubercle bacilli not found, in sputum, by microscopy, but found by bacterial culture) - 011.15 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 011.16 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])
		<i>011.2 (tuberculosis of lung with cavitation)</i> <ul style="list-style-type: none"> - 011.20 (site unspecified) - 011.21 (bacteriological or histological examination not done) - 011.22 (bacteriological or histological examination unknown [at present]). - 011.23 (tubercle bacilli found, in sputum, by microscopy) - 011.24 (tubercle bacilli not found, in sputum, by microscopy, but found by bacterial culture) - 011.25 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 011.26 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])
		<i>011.4 (tuberculous fibrosis of lung)</i> <ul style="list-style-type: none"> - 011.40 (site unspecified) - 011.41 (bacteriological or histological examination not done)



		<ul style="list-style-type: none"> - 011.42 (bacteriological or histological examination unknown [at present]). - 011.43 (tubercle bacilli found, in sputum, by microscopy) - 011.44 (tubercle bacilli not found, in sputum, by microscopy, but found by bacterial culture) - 011.45 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 011.46 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals]) <p><i>011.5 (tuberculous bronchiectasis)</i></p> <ul style="list-style-type: none"> - 011.50 (site unspecified) - 011.51 (bacteriological or histological examination not done) - 011.52 (bacteriological or histological examination unknown [at present]). - 011.53 (tubercle bacilli found, in sputum, by microscopy) - 011.54 (tubercle bacilli not found, in sputum, by microscopy, but found by bacterial culture) - 011.55 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 011.56 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals]) <p><i>011.6 (tuberculous pneumonia, any form)</i></p> <ul style="list-style-type: none"> - 011.60 (site unspecified) - 011.61 (bacteriological or histological examination not done) - 011.62 (bacteriological or histological examination unknown [at present]). - 011.63 (tubercle bacilli found, in sputum, by microscopy) - 011.64 (tubercle bacilli not found, in sputum, by microscopy, but found by bacterial culture) - 011.65 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 011.66 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals]) <p><i>011.7 (tuberculous pneumothorax)</i></p> <ul style="list-style-type: none"> - 011.70 (site unspecified) - 011.71 (bacteriological or histological examination not done) - 011.72 (bacteriological or histological examination unknown [at present]). - 011.73 (tubercle bacilli found, in sputum, by microscopy) - 011.74 (tubercle bacilli not found, in sputum, by microscopy, but found by bacterial culture) - 011.75 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 011.76 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])
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		<p><i>011.8 (other specified pulmonary tuberculosis)</i></p> <ul style="list-style-type: none"> - 011.80 (site unspecified) - 011.81 (bacteriological or histological examination not done) - 011.82 (bacteriological or histological examination unknown [at present]). - 011.83 (tubercle bacilli found, in sputum, by microscopy) - 011.84 (tubercle bacilli not found, in sputum, by microscopy, but found by bacterial culture) - 011.85 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 011.86 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])
		<p><i>011.9 (pulmonary tuberculosis, unspecified)</i></p> <ul style="list-style-type: none"> - 011.90 (site unspecified) - 011.91 (bacteriological or histological examination not done) - 011.92 (bacteriological or histological examination unknown [at present]). - 011.93 (tubercle bacilli found, in sputum, by microscopy) - 011.94 (tubercle bacilli not found, in sputum, by microscopy, but found by bacterial culture) - 011.95 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 011.96 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])
Intrathoracic lymph nodes	<i>A15.4 (tuberculosis of intrathoracic lymph nodes)</i>	<p><i>012.1 (tuberculosis of intrathoracic lymph nodes)</i></p> <ul style="list-style-type: none"> - 012.10 (site unspecified) - 012.11 (bacteriological or histological examination not done) - 012.12 (bacteriological or histological examination unknown, [at present]). - 012.13 (tubercle bacilli found, in sputum, by microscopy) - 012.14 (tubercle bacilli not found, in sputum, by microscopy, but found by bacterial culture) - 012.15 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 012.16 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])
Larynx, trachea and bronchus	<i>A15.5 (tuberculosis of larynx, trachea and bronchus)</i>	<p><i>011.3 (tuberculosis of bronchus)</i></p> <ul style="list-style-type: none"> - 011.30 (site unspecified) - 011.31 (bacteriological or histological examination not done) - 011.32 (bacteriological or histological examination unknown [at present]). - 011.33 (tubercle bacilli found, in sputum, by microscopy) - 011.34 (tubercle bacilli not found, in sputum, by microscopy, but found by bacterial culture) - 011.35 (tubercle bacilli not found by bacteriological



		<p>examination, but tuberculosis confirmed histologically)</p> <ul style="list-style-type: none"> - 011.36 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])
		<p><i>012.2 (isolated tracheal or bronchial tuberculosis)</i></p> <ul style="list-style-type: none"> - 012.20 (site unspecified) - 012.21 (bacteriological or histological examination not done) - 012.22 (bacteriological or histological examination unknown, [at present]). - 012.23 (tubercle bacilli found, in sputum, by microscopy) - 012.24 (tubercle bacilli not found, in sputum, by microscopy, but found by bacterial culture) - 012.25 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 012.26 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])
		<p><i>012.3 (tuberculous laryngitis)</i></p> <ul style="list-style-type: none"> - 012.30 (site unspecified) - 012.31 (bacteriological or histological examination not done) - 012.32 (bacteriological or histological examination unknown, [at present]). - 012.33 (tubercle bacilli found, in sputum, by microscopy) - 012.34 (tubercle bacilli not found, in sputum, by microscopy, but found by bacterial culture) - 012.35 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 012.36 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])
Pleurisy	<i>A15.6 (tuberculous pleurisy)</i>	<p><i>010.1 (tuberculous pleurisy in primary progressive tuberculosis)</i></p> <ul style="list-style-type: none"> - 010.10 (site unspecified) - 010.11 (bacteriological or histological examination not done) - 010.12 (bacteriological or histological examination unknown, [at present]). - 010.13 (tubercle bacilli found, in sputum, by microscopy) - 010.14 (tubercle bacilli not found, in sputum, by microscopy, but found by bacterial culture) - 010.15 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 010.16 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals]) <p><i>012.0 (tuberculous pleurisy)</i></p> <ul style="list-style-type: none"> - 012.00 (site unspecified) - 012.01 (bacteriological or histological examination not done) - 012.02 (bacteriological or histological examination unknown, [at present]).

		<ul style="list-style-type: none"> - 012.03 (tubercle bacilli found, in sputum, by microscopy) - 012.04 (tubercle bacilli not found, in sputum, by microscopy, but found by bacterial culture) - 012.05 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 012.06 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])
Primary respiratory tuberculosis	<i>A15.7 (primary respiratory tuberculosis)</i>	<p><i>010.0 (primary tuberculous infection)</i></p> <ul style="list-style-type: none"> - 010.00 (site unspecified) - 010.01 (bacteriological or histological examination not done) - 010.02 (bacteriological or histological examination unknown, [at present]). - 010.03 (tubercle bacilli found, in sputum, by microscopy) - 010.04 (tubercle bacilli not found, in sputum, by microscopy, but found by bacterial culture) - 010.05 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 010.06 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])
		<p><i>010.8 (other primary progressive tuberculosis)</i></p> <ul style="list-style-type: none"> - 010.80 (site unspecified) - 010.81 (bacteriological or histological examination not done) - 010.82 (bacteriological or histological examination unknown, [at present]). - 010.83 (tubercle bacilli found, in sputum, by microscopy) - 010.84 (tubercle bacilli not found, in sputum, by microscopy, but found by bacterial culture) - 010.85 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 010.86 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])
		<p><i>010.9 (primary tuberculous infection, unspecified)</i></p> <ul style="list-style-type: none"> - 010.90 (site unspecified) - 010.91 (bacteriological or histological examination not done) - 010.92 (bacteriological or histological examination unknown, [at present]). - 010.93 (tubercle bacilli found, in sputum, by microscopy) - 010.94 (tubercle bacilli not found, in sputum, by microscopy, but found by bacterial culture) - 010.95 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 010.96 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])

Other and unspecified	<i>A15.8 (other respiratory tuberculosis)</i>	<i>012.8 (other specified respiratory tuberculosis)</i> - 012.80 (site unspecified) - 012.81 (bacteriological or histological examination not done) - 012.82 (bacteriological or histological examination unknown, [at present]). - 012.83 (tubercle bacilli found, in sputum, by microscopy) - 012.84 (tubercle bacilli not found, in sputum, by microscopy, but found by bacterial culture) - 012.85 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 012.86 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])
	<i>A15.9 (respiratory tuberculosis, unspecified)</i>	

Tuberculosis of nervous system

Condition	ICD-10-CM Codes	ICD-9-CM Codes
Tuberculous meningitis	<i>A17.0 (tuberculous meningitis)</i>	<i>013.0 (tuberculous meningitis)</i> - 013.00 (site unspecified) - 013.01 (bacteriological or histological examination not done) - 013.02 (bacteriological or histological examination unknown [at present]) - 013.03 (tubercle bacilli found, in sputum, by microscopy) - 013.04 (tubercle bacilli not found, in sputum, by microscopy, but found by bacterial culture) - 013.05 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 013.06 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])
Meningeal tuberculoma	<i>A17.1 (meningeal tuberculoma)</i>	<i>013.1 (tuberculoma of meninges)</i> - 013.10 (site unspecified) - 013.11 (bacteriological or histological examination not done) - 013.12 (bacteriological or histological examination unknown [at present]) - 013.13 (tubercle bacilli found, in sputum, by microscopy) - 013.14 (tubercle bacilli not found, in sputum, by microscopy, but found by bacterial culture) - 013.15 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 013.16 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])
Other tuberculosis, tuberculoma	<i>A17.8 (other tuberculosis of nervous system)</i>	<i>013.2 (tuberculoma of brain)</i> - 013.20 (site unspecified) - 013.21 (bacteriological or histological examination not done) - 013.22 (bacteriological or histological examination unknown [at present])
	- A17.81 (tuberculoma)	



	of brain and spinal cord)	<ul style="list-style-type: none"> - 013.23 (tubercle bacilli found, in sputum, by microscopy) - 013.24 (tubercle bacilli not found, in sputum, by microscopy, but found by bacterial culture) - 013.25 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 013.26 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals]) <p><i>013.3 (tuberculous abscess of brain)</i></p> <ul style="list-style-type: none"> - 013.30 (site unspecified) - 013.31 (bacteriological or histological examination not done) - 013.32 (bacteriological or histological examination unknown (at present)) - 013.33 (tubercle bacilli found, in sputum, by microscopy) - 013.34 (tubercle bacilli not found, in sputum, by microscopy, but found by bacterial culture) - 013.35 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 013.36 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals]) <p><i>013.4 (tuberculoma of spinal cord)</i></p> <ul style="list-style-type: none"> - 013.40 (site unspecified) - 013.41 (bacteriological or histological examination not done) - 013.42 (bacteriological or histological examination unknown [at present]) - 013.43 (tubercle bacilli found, in sputum, by microscopy) - 013.44 (tubercle bacilli not found, in sputum, by microscopy, but found by bacterial culture) - 013.45 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 013.46 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals]) <p><i>013.5 (tuberculous abscess of spinal cord)</i></p> <ul style="list-style-type: none"> - 013.50 (site unspecified) - 013.51 (bacteriological or histological examination not done) - 013.52 (bacteriological or histological examination unknown [at present]) - 013.53 (tubercle bacilli found, in sputum, by microscopy) - 013.54 (tubercle bacilli not found, in sputum, by microscopy, but found by bacterial culture) - 013.55 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 013.56 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])
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Tuberculous meningo-encephalitis	- A17.82 (tuberculous meningoencephalitis)	<i>013.6 (tuberculous encephalitis or myelitis)</i> - 013.60 (site unspecified)
Tuberculous neuritis	- A17.83 (tuberculous neuritis)	- 013.61 (bacteriological or histological examination not done) - 013.62 (bacteriological or histological examination unknown [at present]) - 013.63 (tubercle bacilli found, in sputum, by microscopy) - 013.64 (tubercle bacilli not found, in sputum, by microscopy, but found by bacterial culture) - 013.65 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 013.66 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])
Other tuberculosis of nervous system	- A17.89 (other tuberculosis of nervous system)	<i>013.8 (other specified tuberculosis of central nervous system)</i> - 013.80 (site unspecified) - 013.81 (bacteriological or histological examination not done) - 013.82 (bacteriological or histological examination unknown [at present]) - 013.83 (tubercle bacilli found, in sputum, by microscopy) - 013.84 (tubercle bacilli not found (in sputum) by microscopy, but found by bacterial culture) - 013.85 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 013.86 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])
Tuberculosis unspecified	<i>A17.9 (tuberculosis of nervous system, unspecified)</i>	<i>013.9 (unspecified tuberculosis of central nervous system)</i> - 013.90 (site unspecified) - 013.91 (bacteriological or histological examination not done) - 013.92 (bacteriological or histological examination unknown [at present]) - 013.93 (tubercle bacilli found, in sputum, by microscopy) - 013.94 (tubercle bacilli not found, in sputum, by microscopy, but found by bacterial culture) - 013.95 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 013.96 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])

Tuberculosis of other organs

Condition	ICD-10-CM Codes	ICD-9-CM Codes
<i>A18.0 (tuberculosis of bones and joints)</i>		--
Spine	- A18.01 (tuberculosis of spine)	<p><i>015.0 (tuberculosis of vertebral column)</i></p> <ul style="list-style-type: none"> - 015.00 (site unspecified) - 015.01 (bacteriological or histological examination not done) - 015.02 (bacteriological or histological examination unknown [at present]) - 015.03 (tubercle bacilli found, in sputum, by microscopy) - 015.04 (tubercle bacilli not found, in sputum, by microscopy, but found by bacterial culture) - 015.05 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 015.06 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])
Arthritis of other joints	- A18.02 (tuberculous arthritis of other joints)	<p><i>015.1 (tuberculosis of hip)</i></p> <ul style="list-style-type: none"> - 015.10 (site unspecified) - 015.11 (bacteriological or histological examination not done) - 015.12 (bacteriological or histological examination unknown [at present]) - 015.13 (tubercle bacilli found, in sputum, by microscopy) - 015.14 (tubercle bacilli not found, in sputum, by microscopy, but found by bacterial culture) - 015.15 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 015.16 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])
		<p><i>015.2 (tuberculosis of knee)</i></p> <ul style="list-style-type: none"> - 015.20 (site unspecified) - 015.21 (bacteriological or histological examination not done) - 015.22 (bacteriological or histological examination unknown [at present]) - 015.23 (tubercle bacilli found, in sputum, by microscopy) - 015.24 (tubercle bacilli not found, in sputum, by microscopy, but found by bacterial culture) - 015.25 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 015.26 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])
		<p><i>015.8 (tuberculosis of other specified joint)</i></p> <ul style="list-style-type: none"> - 015.80 (site unspecified) - 015.81 (bacteriological or histological examination not done) - 015.82 (bacteriological or histological examination unknown [at present])



		<ul style="list-style-type: none"> - 015.83 (tubercle bacilli found, in sputum, by microscopy) - 015.84 (tubercle bacilli not found, in sputum, by microscopy, but found by bacterial culture) - 015.85 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 015.86 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])
Other bones	- A18.03 (tuberculosis of other bones)	<p><i>015.5 (tuberculosis of limb bones)</i></p> <ul style="list-style-type: none"> - 015.50 (site unspecified) - 015.51 (bacteriological or histological examination not done) - 015.52 (bacteriological or histological examination unknown [at present]) - 015.53 (tubercle bacilli found, in sputum, by microscopy) - 015.54 (tubercle bacilli not found, in sputum, by microscopy, but found by bacterial culture) - 015.55 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 015.56 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])
		<p><i>015.6 (tuberculosis of mastoid)</i></p> <ul style="list-style-type: none"> - 015.60 (site unspecified) - 013.61 (bacteriological or histological examination not done) - 015.62 (bacteriological or histological examination unknown [at present]) - 015.63 (tubercle bacilli found, in sputum, by microscopy) - 015.64 (tubercle bacilli not found, in sputum, microscopy, but found by bacterial culture) - 015.65 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 015.66 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])
		<p><i>015.7 (tuberculosis of other specified bone)</i></p> <ul style="list-style-type: none"> - 015.70 (site unspecified) - 015.71 (bacteriological or histological examination not done) - 015.72 (bacteriological or histological examination unknown [at present]) - 015.73 (tubercle bacilli found, in sputum, by microscopy) - 015.74 (tubercle bacilli not found, in sputum, by microscopy, but found by bacterial culture) - 015.75 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 015.76 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])



Other musculo-skeletal	A18.09 (other musculo-skeletal tuberculosis)	<p><i>015.9 (tuberculosis of unspecified bones and joints)</i></p> <ul style="list-style-type: none"> - 015.90 (site unspecified) - 015.91 (bacteriological or histological examination not done) - 015.92 (bacteriological or histological examination unknown [at present]) - 015.93 (tubercle bacilli found, in sputum, by microscopy) - 015.94 (tubercle bacilli not found, in sputum, by microscopy, but found by bacterial culture) - 015.95 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 015.96 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])
<i>18.1 (tuberculosis of genitourinary system)</i>		--
Genitourinary system, unspecified	- A18.10 (tuberculosis of genitourinary system, unspecified)	<p><i>016.9 (genitourinary tuberculosis, unspecified)</i></p> <ul style="list-style-type: none"> - 016.90 (site unspecified) - 016.91 (bacteriological or histological examination not done) - 016.92 (bacteriological or histological examination unknown [at present]) - 016.93 (tubercle bacilli found, in sputum, by microscopy) - 016.94 (tubercle bacilli not found, in sputum, by microscopy, but found by bacterial culture) - 016.95 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 016.96 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])
Kidney	- A18.11 (tuberculosis of kidney and ureter)	<p><i>016.0 (tuberculosis of kidney)</i></p> <ul style="list-style-type: none"> - 016.00 (site unspecified) - 016.01 (bacteriological or histological examination not done) - 016.02 (bacteriological or histological examination unknown [at present]) - 016.03 (tubercle bacilli found, in sputum, by microscopy) - 016.04 (tubercle bacilli not found, in sputum, by microscopy, but found by bacterial culture) - 016.05 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 016.06 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])
Ureter		<p><i>016.2 (tuberculosis of ureter)</i></p> <ul style="list-style-type: none"> - 016.20 (site unspecified) - 016.21 (bacteriological or histological examination not done) - 016.22 (bacteriological or histological examination unknown [at present]) - 016.23 (tubercle bacilli found, in sputum, by microscopy) - 016.24 (tubercle bacilli not found, in sputum, by microscopy,

		<p>but found by bacterial culture)</p> <ul style="list-style-type: none"> - 016.25 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 016.26 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])
Bladder	- A18.12 (tuberculosis of bladder)	<p><i>016.1 (tuberculosis of bladder)</i></p> <ul style="list-style-type: none"> - 016.10 (site unspecified) - 016.11 (bacteriological or histological examination not done) - 016.12 (bacteriological or histological examination unknown [at present]) - 016.13 (tubercle bacilli found, in sputum, by microscopy) - 016.14 (tubercle bacilli not found, in sputum, by microscopy, but found by bacterial culture) - 016.15 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 016.16 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])
Other urinary organs	- A18.13 (tuberculosis of other urinary organs)	<p><i>016.3 (tuberculosis of other urinary organs)</i></p> <ul style="list-style-type: none"> - 016.30 (site unspecified) - 016.31 (bacteriological or histological examination not done) - 016.32 (bacteriological or histological examination unknown [at present]) - 016.33 (tubercle bacilli found, in sputum, by microscopy) - 016.34 (tubercle bacilli not found, in sputum, by microscopy, but found by bacterial culture) - 016.35 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 016.36 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])
Prostate	- A18.14 (tuberculosis of prostate)	<p><i>016.5 (tuberculosis of other male genital organs)</i></p> <ul style="list-style-type: none"> - 016.50 (site unspecified) - 016.51 (bacteriological or histological examination not done) - 016.52 (bacteriological or histological examination unknown [at present]) - 016.53 (tubercle bacilli found, in sputum, by microscopy) - 016.54 (tubercle bacilli not found, in sputum, by microscopy, but found by bacterial culture) - 016.55 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 016.56 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])
Epididymis	- A18.15 (tuberculosis of other male genital organs)	<p><i>016.4 (tuberculosis of epididymis)</i></p> <ul style="list-style-type: none"> - 016.40 (site unspecified) - 016.41 (bacteriological or histological examination not done)

		<ul style="list-style-type: none"> - 016.42 (bacteriological or histological examination unknown [at present]) - 016.43 (tubercle bacilli found, in sputum, by microscopy) - 016.44 (tubercle bacilli not found, in sputum, by microscopy, but found by bacterial culture) - 016.45 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 016.46 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])
Cervix	- A18.16 (tuberculosis of cervix)	016.7 (below)
Pelvic inflammatory disease	- A18.17 (tuberculous female pelvic inflammatory disease)	<p><i>016.6 (tuberculous oophoritis and salpingitis)</i></p> <ul style="list-style-type: none"> - 016.60 (site unspecified) - 016.61 (bacteriological or histological examination not done) - 016.62 (bacteriological or histological examination unknown [at present]) - 016.63 (tubercle bacilli found, in sputum, by microscopy) - 016.64 (tubercle bacilli not found, in sputum, by microscopy, but found by bacterial culture) - 016.65 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 016.66 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])
Other female genital organs	- A18.18 (tuberculosis of other female genital organs)	<p><i>016.7 (tuberculosis of other female genital organs)</i></p> <ul style="list-style-type: none"> - 016.70 (site unspecified) - 016.71 (bacteriological or histological examination not done) - 016.72 (bacteriological or histological examination unknown [at present]) - 016.73 (tubercle bacilli found, in sputum, by microscopy) - 016.74 (tubercle bacilli not found, in sputum, by microscopy, but found by bacterial culture) - 016.75 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 016.76 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])
Peripheral lymph nodes	<i>A18.2 (tuberculous peripheral lymphadenopathy)</i>	<p><i>017.2 (tuberculosis of peripheral lymph nodes)</i></p> <ul style="list-style-type: none"> - 017.20 (site unspecified) - 017.21 (bacteriological or histological examination not done) - 017.22 (bacteriological or histological examination unknown [at present]) - 017.23 (tubercle bacilli found, in sputum, by microscopy) - 017.24 (tubercle bacilli not found, in sputum, by microscopy, but found by bacterial culture) - 017.25 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically)

		- 017.26 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])
<i>A18.3 (tuberculosis of intestines, peritoneum and mesenteric glands)</i>		--
Peritonitis	- A18.31 (tuberculous peritonitis)	<i>014.0 (tuberculous peritonitis)</i> - 014.00 (site unspecified) - 014.01 (bacteriological or histological examination not done) - 014.02 (bacteriological or histological examination unknown [at present]) - 014.03 (tubercle bacilli found, in sputum, by microscopy) - 014.04 (tubercle bacilli not found, in sputum, by microscopy, but found by bacterial culture) - 014.05 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 014.06 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])
Enteritis	- A18.32 (tuberculous enteritis)	<i>014.8 (other tuberculosis of anus, intestine, mesenteric glands rectum, retroperitoneal lymph nodes)</i>
Retroperitoneal	- A18.39 (retroperitoneal tuberculosis)	- 014.80 (site unspecified) - 014.81 (bacteriological or histological examination not done) - 014.82 (bacteriological or histological examination unknown [at present]) - 014.83 (tubercle bacilli found, in sputum, by microscopy) - 014.84 (tubercle bacilli not found (in sputum) by microscopy, but found by bacterial culture) - 014.85 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 014.86 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])
Skin and subcutaneous tissue	<i>A18.4 (tuberculosis of skin and subcutaneous tissue)</i>	<i>017.0 (tuberculosis of skin and subcutaneous cellular tissue)</i> - 017.00 (site unspecified) - 017.01 (bacteriological or histological examination not done) - 017.02 (bacteriological or histological examination unknown [at present]) - 017.03 (tubercle bacilli found, in sputum, by microscopy) - 017.04 (tubercle bacilli not found (in sputum) by microscopy, but found by bacterial culture) - 017.05 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 017.06 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])
Erythema nodosum		<i>017.1 (erythema nodosum with hypersensitivity reaction in tuberculosis)</i> - 017.10 (site unspecified)

		<ul style="list-style-type: none"> - 017.11 (bacteriological or histological examination not done) - 017.12 (bacteriological or histological examination unknown [at present]) - 017.13 (tubercle bacilli found, in sputum, by microscopy) - 017.14 (tubercle bacilli not found (in sputum) by microscopy, but found by bacterial culture) - 017.15 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 017.16 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])
<i>A18.5 (tuberculosis of eye)</i>		--
Eye	A18.50 (tuberculosis of eye, unspecified)	<i>017.3 (tuberculosis of eye)</i> <ul style="list-style-type: none"> - 017.30 (site unspecified) - 017.31 (bacteriological or histological examination not done) - 017.32 (bacteriological or histological examination unknown [at present]) - 017.33 (tubercle bacilli found, in sputum, by microscopy) - 017.34 (tubercle bacilli not found (in sputum) by microscopy, but found by bacterial culture) - 017.35 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 017.36 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])
	A18.51 (tuberculous episcleritis)	
	A18.52 (tuberculous keratitis)	
	A18.53 (tuberculous chorioretinitis)	
	A18.54 (tuberculous iridocyclitis)	
	A18.59 (other tuberculosis of eye)	
Ear	<i>A18.6 (tuberculosis of inner, middle, ear)</i>	<i>017.4 (tuberculosis of ear)</i> <ul style="list-style-type: none"> - 017.40 (site unspecified) - 017.41 (bacteriological or histological examination not done) - 017.42 (bacteriological or histological examination unknown [at present]) - 017.43 (tubercle bacilli found, in sputum, by microscopy) - 017.44 (tubercle bacilli not found (in sputum) by microscopy, but found by bacterial culture) - 017.45 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 017.46 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])
Adrenal glands	<i>A18.7 (tuberculosis of adrenal glands)</i>	<i>017.6 (tuberculosis of adrenal gland)</i> <ul style="list-style-type: none"> - 017.60 (site unspecified) - 017.61 (bacteriological or histological examination not done) - 017.62 (bacteriological or histological examination unknown [at present]) - 017.63 (tubercle bacilli found, in sputum, by microscopy) - 017.64 (tubercle bacilli not found (in sputum) by microscopy, but found by bacterial culture) - 017.65 (tubercle bacilli not found by bacteriological



		<p>examination, but tuberculosis confirmed histologically)</p> <ul style="list-style-type: none"> - 017.66 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])
<i>A18.8 (tuberculosis of other specified organs)</i>		--
Thyroid gland	- A18.81 (tuberculosis of thyroid gland)	<p><i>017.5 (tuberculosis of thyroid gland)</i></p> <ul style="list-style-type: none"> - 017.50 (site unspecified) - 017.51 (bacteriological or histological examination not done) - 017.52 (bacteriological or histological examination unknown [at present]) - 017.53 (tubercle bacilli found, in sputum, by microscopy) - 017.54 (tubercle bacilli not found (in sputum) by microscopy, but found by bacterial culture) - 017.55 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 017.56 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])
Endocrine glands	- A18.82 (tuberculosis of other endocrine glands)	017.9 (below)
Digestive tract organs NOS	- A18.83 (tuberculosis of digestive tract organs, not elsewhere classified)	014.8 (above)
Heart	- A18.84 (tuberculosis of heart)	<p><i>017.9 (tuberculosis of other specified organs)</i></p> <ul style="list-style-type: none"> - 017.90 (site unspecified) - 017.91 (bacteriological or histological examination not done) - 017.92 (bacteriological or histological examination unknown [at present]) - 017.93 (tubercle bacilli found, in sputum, by microscopy) - 017.94 (tubercle bacilli not found (in sputum) by microscopy, but found by bacterial culture) - 017.95 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 017.96 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])
Spleen	- A18.85 (tuberculosis of spleen)	<p><i>017.7 (tuberculosis of spleen)</i></p> <ul style="list-style-type: none"> - 017.70 (site unspecified) - 017.71 (bacteriological or histological examination not done) - 017.72 (bacteriological or histological examination unknown (at present)) - 017.73 (tubercle bacilli found, in sputum, by microscopy) - 017.74 (tubercle bacilli not found (in sputum) by microscopy, but found by bacterial culture)



		<ul style="list-style-type: none"> - 017.75 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 017.76 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])
Tuberculosis of other sites	- A18.89 (tuberculosis of other sites)	<p><i>017.8 (tuberculosis of esophagus)</i></p> <ul style="list-style-type: none"> - 017.80 (site unspecified) - 017.81 (bacteriological or histological examination not done) - 017.82 (bacteriological or histological examination unknown [at present]) - 017.83 (tubercle bacilli found, in sputum, by microscopy) - 017.84 (tubercle bacilli not found, in sputum, by microscopy, but found by bacterial culture) - 017.85 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 017.86 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])

Miliary Tuberculosis

Condition	ICD-10-CM Codes	ICD-9-CM Codes
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<i>A19 (miliary tuberculosis)</i>		
Acute	A19.0 (acute miliary tuberculosis of a single specified site)	<p><i>018.0 (acute miliary tuberculosis)</i></p> <ul style="list-style-type: none"> - 018.00 (site unspecified) - 018.01 (bacteriological or histological examination not done_ - 018.02 (bacteriological or histological examination unknown (at present) - 018.03 (tubercle bacilli found, in sputum, by microscopy) - 018.04 (tubercle bacilli not found, in sputum, by microscopy, but found by bacterial culture) - 018.05 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 018.06 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])
	A19.1 (acute miliary tuberculosis of multiple site)	
	A19.2 (acute miliary tuberculosis, unspecified)	
Other	A19.8 (other miliary tuberculosis)	<p><i>018.8 (other specified miliary tuberculosis)</i></p> <ul style="list-style-type: none"> - 018.80 (site unspecified) - 018.81 (bacteriological or histological examination not done) - 018.82 (bacteriological or histological examination unknown (at present]) - 018.83 (tubercle bacilli found, in sputum, by microscopy) - 018.84 (tubercle bacilli not found, in sputum, by microscopy, but found by bacterial culture) - 018.85 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically)



		- 018.86 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])
Unspecified	A19.9 (miliary tuberculosis, unspecified)	<p><i>018.9 (miliary tuberculosis, unspecified)</i></p> <ul style="list-style-type: none"> - 018.90 (site unspecified) - 018.91 (bacteriological or histological examination not done) - 018.92 (bacteriological or histological examination unknown (at present)) - 018.93 (tubercle bacilli found, in sputum, by microscopy) - 018.94 (tubercle bacilli not found, in sputum, by microscopy, but found by bacterial culture) - 018.95 (tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically) - 018.96 (tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals])

Development and Revisions

- In December of 2016 the case definition was updated to include ICD10 codes.
- In 2009 the Tri-Service Reportable Medical Events guidelines were updated to include the addition of the Quantiferon Gold test (and other such blood tests) as a possible substitute for the tuberculin skin test in the evaluation of patients for possible exposure to, and infection with, *M. tuberculosis*.
- This case definition was developed in 2007 by AFHSC Epidemiology and Analysis staff and USUHS for the purpose of conducting two special epidemiologic studies on active tuberculosis in the U.S. Military. The studies included extrapulmonary tuberculosis.

Case Definition and Incidence Rule Rationale

- The 2007 case definition was updated to be more specific, rather than sensitive, for tuberculosis (TB) cases in order to reduce the potential for the inclusions of miscodings of TB skin tests and rule-out diagnoses as cases of TB.

Code Set Determination and Rationale

- During the development of the case definition, it was recognized that ICD9 code 017.06 (tuberculosis of the skin and subcutaneous cellular tissue; tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals]) was mistakenly being reported in the Army reportable medical events system. This coding error occurred from 1996-1999 at a single Army medical facility. Therefore, this ICD9 code was excluded from the final case definition. For future tuberculosis studies, this code should be included in the code set as long as additional misuses of the code are not identified.
- The ICD9 code set used for surveillance of pulmonary tuberculosis through the Tri-Service Reportable Events surveillance system uses ICD9 codes 011.xx (pulmonary tuberculosis) only.⁴

⁴ Armed Forces Health Surveillance Center. Tri-Service Reportable Events Guidelines and Case Definitions. June 2009. Available on the AFHSC website at: <http://www.health.mil/afhsb> ; see “Reports and Publications”.



Reports

AFHSC reports on *pulmonary* tuberculosis in the following reports:

- Monthly: Armed Forces Health Surveillance Branch. *AFHSB Reportable Events Monthly Report*; includes only reportable medical events.
- Weekly: “Armed Forces Communicable Disease Weekly Report” for the various Services’ public health centers; includes only reportable medical events. Available on the AFHSC website at: <http://www.health.mil/afhsb> ; see “Reports and Publications”.

Review

Dec 2016	Case definition reviewed and updated by the AFHSB Surveillance Methods and Standards (SMS) working group.
Jun 2011	Case definition reviewed and adopted by the AFHSC Surveillance Methods and Standards (SMS) working group
Jan 2007	Case definition developed by AFHSC Epidemiology and Analysis staff and USHUS.

Comments

None

