

POST-TRAUMATIC STRESS DISORDER (PTSD)

Includes Acute and Chronic PTSD; For Acute Stress Disorder, see “Acute Stress Disorder” case definition.

Background

This case definition was developed by the Armed Forces Health Surveillance Division (AFHSD) for the purpose of epidemiological surveillance of a condition important to military populations. This case definition for PTSD differs from that used in the mental health report for Health Affairs.¹

Clinical Description

Post-traumatic stress disorder, commonly referred to by its acronym, PTSD, is a severe anxiety disorder that can develop after exposure to any event that causes psychological trauma. The event may involve the threat of death to oneself or to someone else, or a threat to one’s own or someone else’s physical, sexual, or psychological integrity, overwhelming the individual’s psychological defenses. Symptoms include re-experiencing the original trauma(s) through flashbacks or nightmares, avoidance of stimuli associated with the trauma, and increased arousal manifest as difficulty falling asleep or staying asleep, anger, or hypervigilance. Formal diagnostic criteria are dependent upon the duration of symptoms (see *Comments* below), and the associated impairment in social, occupational, or other important areas of functioning, (e.g., problems with work and relationships).²

Case Definition and Incidence Rules

For surveillance purposes, a case of a PTSD is defined as:

- *One hospitalization* with a case defining diagnosis of PTSD (see ICD9 and ICD10 code lists below) in the *first or second* diagnostic position; or
- *Two outpatient or Theater Medical Data Store (TMDS) medical encounters*, within *180 days* of each other, with a case defining diagnosis of PTSD (see ICD9 and ICD10 code lists below) in the *first or second* diagnostic position; or
- *One outpatient medical encounter in a psychiatric or mental health care specialty setting*, defined by Medical Expense and Performance Reporting System (MEPRS) code BF, with a case defining diagnosis of PTSD (see ICD9 and ICD10 code lists below) in the *first or second* diagnostic position.

Incidence rules:

For individuals who meet the case definition:

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¹ Armed Forces Health Surveillance Division. Mental health disorders and mental health problems, active component, U.S. Armed Forces, 2016-2020. *Medical Surveillance Monthly Report (MSMR)*. August 2021; Vol. 28 (8): 2-9.

²American Psychiatric Association. Adjustment Disorders. *Diagnostic and Statistical Manual of Mental Disorders*, Fifth Edition (DSM-5). Arlington, VA: 2013.



Case Definition and Incidence Rules *(continued)*

- The incidence date is considered the date of the first hospitalization or outpatient medical encounter that includes a case defining diagnosis of PTSD.
- An individual is considered an incident case *once per lifetime*.

Exclusions:

- None

Codes

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

Condition	ICD-10-CM Codes	ICD-9-CM Codes
Post-traumatic Stress Disorder (PTSD)	F43.1 (post-traumatic stress disorder; PTSD)	309.81 (post-traumatic stress disorder)
	- F43.10 (post-traumatic stress disorder, unspecified)	
	- F43.11 (post-traumatic stress disorder, <i>acute</i>)	
	- F43.12 (post-traumatic stress disorder, <i>chronic</i>)	

Development

- In May of 2014 the case definition was updated to include ICD10 codes.
- This case definition was developed in November of 2010 by the Armed Forces Health Surveillance Center (AFHSC) *Medical Surveillance Monthly Report (MSMR)* staff for an article on mental disorders and mental health problems among active duty Service members.¹ The case definition was developed based on reviews of the ICD9 codes, the scientific literature, and previous AFHSC analyses.

Case Definition Incidence Rule Rationale

- The case finding criteria were chosen to increase the specificity of the case definition and to increase the likelihood that “true” cases of PTSD would be identified.
- For the purposes of counting new incident cases, AFHSD uses a once per lifetime incidence rule unless a specific timeframe is more appropriate and is specified, (e.g., individuals may be counted as an incident case once every 365 days). Historically, a "once per surveillance period" incidence rule was used due to limited data in the Defense Medical Surveillance System (DMSS), but that is no longer necessary.



Reports

The AFHSD reports on PTSD in the following reports:

- Periodic *MSMR* articles.
- Annually: *MSMR* article on the “Absolute and relative morbidity burdens attributable to various illnesses and injuries, U.S. Armed Forces” (see *Comments* section below).
- Quarterly: AFHSC Mental Health Report for the Department of Defense (Office of the Assistant Secretary of Defense for Health Affairs);³ this report describes the incidence rates of, and proportions of the population affected by, major depression, bipolar disorder, alcohol dependence, substance dependence and PTSD. The case definition and code sets used for this report differ slightly from the case definition for PTSD documented here.

Revisions and Review

Jan 2022	Case definition reviewed and updated by the AFHSD Surveillance Methods and Standards (SMS) working group.
Jun 2019	Case definition reviewed and updated by the Armed Forces Health Surveillance Branch (AFHSB) SMS working group.
May 2014	Case definitions reviewed and updated by the AFHSC SMS working group.
Jul 2012	Case definition reviewed and adopted by the AFHSC SMS working group.
Nov 2010	Case definition developed by the AFHSC <i>MSMR</i> staff.

Comments

*PTSD Diagnostic Criteria:*² The diagnosis of PTSD is, in part, dependent upon the duration of symptoms. When describing the condition, the following specifiers may be used:

- *Acute Stress Disorder*: symptoms for 0-1 months.
- *Acute PTSD*: symptoms for 2-3 months, < 3 months.
- *Chronic PTSD*: symptoms for > 3 months.
- *PTSD with delayed onset*. At least 6 months have passed between the traumatic event and the onset of the symptoms.

Burden of Disease Reports:

The AFHSD articles and reports on the “burden” of illness and injury in the U.S. Armed Forces group all illness and injury-specific diagnoses, defined by ICD9 and ICD10 codes, into 142 burden of disease-related conditions and 25 categories based on a modified version of the classification system developed for the Global Burden of Disease (GBD) Study.⁴ In general, the GBD system groups diagnoses with common pathophysiologic or etiologic bases and/or significant international health policymaking importance.

³ Armed Forces Health Surveillance Center. Selected mental health disorders among active component members, U.S. Armed Forces, 2007-2010. *Medical Surveillance Monthly Report (MSMR)*. 2010 November; 17(11): 2-5.

⁴ The global burden of disease: A comprehensive assessment of mortality and disability from diseases, injuries, and risk factors in 1990 and projected to 2020. Murray, CJ and Lopez, AD, eds. Harvard School of Public Health (on behalf of the World Health Organization and The World Bank), 1996:120-2.



The AFHSD disaggregates some diagnoses that are grouped into single categories in the GBD system, (e.g., mental disorders), to increase the military relevance of the results. The category of mental health disorders is separated into the following sub-categories of “disorders”: anxiety, substance abuse, adjustment, mood, tobacco dependence, psychotic, personality, somatoform, and all other mental disorders.⁵

Because reports on disease burden are based on the total numbers of medical encounters for specific conditions, a slightly different case definition is used for burden analyses. The case definition requires capturing only the diagnosis in the primary (first) diagnostic position of each record of an inpatient or outpatient medical encounter. Each individual is allowed only one medical encounter per condition per day, and inpatient encounters are prioritized over outpatient encounters on the same day. Case defining codes are any ICD9 codes between 001 and 999, any ICD10 codes between A00 and T88, ICD10 codes beginning with Z37 (outcome of delivery), and DoD unique personal history codes DoD 0101-0105.

Comprehensive AFHSD Mental Health Reports:

For analyses and reports requiring data on *all* mental disorders, AFHSD includes *all* mental health diagnoses that fall within the range of ICD9 codes 290-319 / ICD10 codes F01-F99 (mental disorders) in the first or second diagnostic position. The following diagnoses are excluded from the analysis.

- ICD9 310.2 / ICD10 F07.81 (post-concussion syndrome)
- ICD9 305.1 / ICD10 F17* (tobacco use disorder / nicotine dependence) is not included as tobacco-cessation efforts are widespread within primary care clinics in the military and this diagnosis is not treated as a mental health disorder.
- ICD9 317*-319* / ICD10 F70-F79 (mental retardation)
- ICD9 315* / ICD10 F80*-F82*, F88-F89 (specific delays in development)
- ICD9 299* / ICD10 F84* (pervasive developmental disorders)

⁵ Armed Forces Health Surveillance Division. Absolute and relative morbidity burdens attributable to various illnesses and injuries, active component, *Medical Surveillance Monthly Report (MSMR)*. May 2021; Vol. 28 (5): 2-9.

