

ANXIETY DISORDERS

Includes Generalized Anxiety, Panic, Phobic, and Obsessive-Compulsive Disorders

Background

This case definition was developed by the Armed Forces Health Surveillance Branch (AFHSB) for the purpose of descriptive epidemiological reports on mental disorders and mental health problems among active duty Service members.¹ The reports provide a comprehensive look at the status of mental health in the Services and provide in depth information on numbers, rates, and trends of anxiety disorders and other mental health diagnoses.

Clinical Description

Anxiety disorders encompass a broad range of mental illnesses. Generalized anxiety disorders are characterized by chronic and excessive worry about minor day-to-day problems. The worrying is usually severe and impedes an individual's social and occupational functioning. Individuals with phobias have a persistent fear that is excessive or unreasonable, cued by the presence or anticipation of a specific object or situation. Exposure to the phobic stimulus results in an immediate anxiety reaction or panic attack. Panic disorders are characterized by unexpected and repeated episodes of intense fear of disaster or of losing control even when there is no real danger. Attacks are often accompanied by physical symptoms of stress. Individuals with obsessive compulsive disorder experience obsessions (recurrent, persistent thoughts, impulses or images in excess of worries about real-life problems) and compulsions (repetitive behaviors such as hand washing, ordering, checking or mental acts such as praying, counting, repeating words silently) and are driven to perform these activities in response to an obsession.²

Case Definition and Incidence Rules

For surveillance purposes, a case of anxiety disorder is defined as:

- *One hospitalization* with any of the defining diagnoses of anxiety disorder (see ICD9 and ICD10 code lists below) in the *first or second* diagnostic position; or
- *Two outpatient medical encounters, within 180 days* of each other, with any of the defining diagnoses of anxiety disorder (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 any of the defining diagnoses of anxiety disorder (see ICD9 and ICD10 code lists below) in the *first or second* diagnostic position.

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¹ Armed Forces Health Surveillance Branch. Mental health disorders and mental health problems, active component, U.S. Armed Forces, 2007-2016. *Medical Surveillance Monthly Report (MSMR)*. March 2018; Vol.25 (3): 2- 11.

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



Case Definition and Incidence Rules (cont.)

Incidence rules:

For individuals who meet the case definition:

- The incidence date is considered the date of the first hospitalization or outpatient medical encounter that includes a diagnosis of anxiety disorder.
- An individual is considered an incident case *once per surveillance period*.

Exclusions:

- None

Codes

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

Condition	ICD-10-CM Codes	ICD-9-CM Codes
Anxiety disorders	<i>F40 (phobic anxiety disorders)</i>	<i>300.2 (phobic disorders)</i>
	F40.0 (agoraphobia ...)	300.21 (agoraphobia with panic disorder)
	- F40.00 (unspecified)	300.22 (agoraphobia without mention of panic attacks)
	- F40.01 (with panic disorder)	
	- F40.02 (without panic disorder)	
	F40.1 (social phobias ...)	300.23 (social phobia)
	- F40.10 (unspecified)	300.29 (other isolated or specific phobias)
	- F40.11 (generalized)	
	F40.2 (specific [isolated] phobias)	
	- F40.21 (animal type phobia)	300.29 (above)
	- F40.210 (arachnophobia)	
	- F40.218 (other animal type phobia)	
	F40.22 (natural environment type phobia)	300.29 (above)
	- F40.220 (fear of thunderstorms)	
	- F40.228 (other natural environment type phobia)	

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F40.23 (blood, injection, injury type phobia)	300.29 (above)
- F40.230 (fear of blood)	
- F40.231 (fear of injections and transfusions)	
- F40.232 (fear of other medical care)	
- F40.233 (fear of injury)	
F40.24 (situational type phobia)	300.29 (above)
- F40.240 (claustrophobia)	
- F40.241 (acrophobia)	
- F40.242 (fear of bridges)	
- F40.243 (fear of flying)	
- F40.248 (other situational type phobia)	
F40.29 (other specified phobia)	300.29 (above)
- F40.290 (androphobia)	
- F40.291 (gynephobia)	
- F40.298 (other specified phobia)	
F40.8 (other phobic anxiety disorders)	
F40.9 (phobic anxiety disorder, unspecified)	300.20 (phobia, unspecified)
<i>F41 (other anxiety disorders)</i>	<i>300.0 (anxiety states)</i>
- F41.0 (panic disorder, episodic paroxysmal anxiety, without agoraphobia)	300.01 (panic disorder without agoraphobia)
- F41.1 (generalized anxiety disorder)	300.02 (generalized anxiety disorder)
- F41.3 (other mixed anxiety disorder)	300.09 (other anxiety state)
- F41.8 (other specified anxiety disorder)	
- F41.9 (anxiety disorder, unspecified)	300.00 (anxiety state, unspecified)
<i>F42 (obsessive-compulsive disorder)</i>	<i>300.3 (obsessive-compulsive disorders)</i>
- F42.2 (mixed obsessional thoughts and acts)	
- F42.3 (hoarding disorder)	
- F42.4 (excoriation [skin-picking] disorder)	
- F42.8 (other obsessive-compulsive disorder)	

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	- F42.9 (obsessive-compulsive disorder, unspecified)	
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Development and Revisions

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

Case Definition and Incidence Rule Rationale

- To increase the specificity of the case definition for outpatient encounters, two such encounters with the defining diagnoses are required. The period of 180 days was established to allow for the likelihood that “true” cases of anxiety disorder would have a second encounter within that interval.

Code Set Determination and Rationale

- In December 2018, ICD10 codes F42.2-9 were added to the code set.
- Codes ICD10 F93 / ICD9 309.21 (separation anxiety) is not included in the code set as the disorder primarily occurs in childhood. When conducting studies of anxiety in the military, some investigators may choose to include the code in their analyses.
- The code set and groupings of mental health disorder-specific diagnoses used in this case definition are based on code sets developed by Garvey *et al.*³ and Seal *et al.*⁴ The final code set was selected after a review of the scientific literature and of the relevant codes in the International Classification of Diseases, 9th Revision.

Reports

AFHSB reports on anxiety disorders 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).

Review

Dec 2018	Case definition reviewed and updated by the AFHSB Surveillance Methods and Standards (SMS) working group.
Dec 2014	Case definition reviewed and updated by the AFHSC Surveillance Methods and Standards (SMS) working group.

³ Garvey Wilson A, Messer S, Hoge C. U.S. military mental health care utilization and attrition prior to the wars in Iraq and Afghanistan. *Soc Psychiatry Psychiatr Epidemiol.* 2009;44 (6):473-481.

⁴ Seal KH, Bertenthal D, Miner CR, Sen S, Marmar C. Bringing the War Back Home: Mental Health Disorders Among 103 788 US Veterans Returning From Iraq and Afghanistan Seen at Department of Veterans Affairs Facilities. *Arch Intern Med.* March 12, 2007;167 (5):476-482.



July 2012	Case definition reviewed and adopted by AFHSC Surveillance Methods and Standards working group.
Nov 2010	Case definition developed and reviewed by AFHSC <i>MSMR</i> staff.

Comments

Burden of Disease Reports:

AFHSB 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.⁵ In general, the GBD system groups diagnoses with common pathophysiologic or etiologic bases and/or significant international health policymaking importance.

The AFHSB 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.⁶

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 AFHSB Mental Health Reports:

For analyses and reports requiring data on *all* mental disorders, AFHSB 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.

- Codes ICD9 310.2 / ICD10 F07.81 (post-concussion syndrome)
- Codes 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.
- Codes ICD9 317*-319* / ICD10 F70-F79 (mental retardation)
- Codes ICD9 315* / ICD10 F80*-F82*, F88-F89 (specific delays in development)
- Codes ICD9 299* / ICD10 F84* (pervasive developmental disorders)

⁵ 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.

⁶ Armed Forces Health Surveillance Branch. Absolute and relative morbidity burdens attributable to various illnesses and injuries, active component, *Medical Surveillance Monthly Report (MSMR)*. May 2018; Vol.25 (5): 2-9.

