

ANXIETY DISORDERS

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

Background

This case definition was developed by the Armed Forces Health Surveillance Center (AFHSC) Medical Surveillance Monthly Report (MSMR) staff 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 that fall within the range of ICD-9-CM codes 290-319 (mental disorders).

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.^{2,3}

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.

(continued on next page)

¹ Armed Forces Health Surveillance Center. Mental Disorders and Mental Health Problems, Active Component, U.S. Armed Forces, January 2000 – December 2009. *Medical Surveillance Monthly Report (MSMR)*. 2010 November; Vol.17 (11): 6- 12.

² American Psychiatric Association Diagnostic and Statistical Manual of Mental Disorders. Fourth Edition. 1994.

³ National Institute of Mental Health. Available at: <http://www.nimh.nih.gov/health/index.shtml> Accessed 23 May 2012.



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 ICD-9 and ICD10 codes are included in the case definition:

Condition	ICD-10-CM Codes	ICD-9-CM Codes
Anxiety Disorders	F40.0 (agoraphobia)	--
	- F40.00 (agoraphobia, unspecified)	300.22 (agoraphobia without mention of panic attacks)
	- F40.01 (agoraphobia with panic disorder)	300.21 (agoraphobia with panic disorder)
	- F40.02 (agoraphobia without panic disorder)	300.22 (above)
	F40.1 (social phobias)	--
	- F40.10 (social phobia, unspecified)	300.23 (social phobia)
	- F40.11 (social phobia, generalized)	300.23 (above)
	F40.2 (specific, isolated, phobias)	--
	- F40.21 (animal type phobia)	--
	- F40.210 (arachnophobia)	300.29 (other isolated or specific phobias)
	- F40.218 (other animal type phobia)	300.29 (above)
	F40.22 (natural environment type phobia)	--
	- F40.220 (fear of thundestorms)	300.29 (above)
	- F40.228 (other natural environment type phobia)	300.29 (above)

(continued on next page)



F40.23 (blood, injection, injury type phobia)	--
- F40.230 (fear of blood)	300.29 (above)
- F40.231 (fear of injections and transfusions)	300.29 (above)
- F40.232 (fear of other medical care)	300.29 (above)
- F40.233 (fear of injury)	300.29 (above)
F40.24 (situational type phobia)	--
- F40.240 (claustrophobia)	300.29 (above)
- F40.241 (acrophobia)	300.29 (above)
- F40.242 (fear of bridges)	300.29 (above)
- F40.243 (fear of flying)	300.29 (above)
- F40.248 (other situational type phobia)	300.29 (above)
F40.29 (other specified phobia)	--
- F40.290 (androphobia)	300.29 (above)
- F40.291 (gynephobia)	300.29 (above)
- F40.298 (other specified phobia)	300.29 (above)
F40.8 (other phobic anxiety disorders)	300.29 (above)
F40.9 (phobic anxiety disorder, unspecified)	300.20 (phobia, unspecified)
F41 (other anxiety disorders)	--
- 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)	300.09 (above)
- F41.9 (anxiety disorder, unspecified)	300.00 (anxiety state, unspecified)
F42 (obsessive-compulsive disorder)	300.3 (obsessive-compulsive disorders)

Development and Revisions

This case definition was developed in November of 2010 by AFHSC MSMR staff for a MSMR 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.

- In December of 2014 the case definition was updated to include ICD10 codes.



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

- 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.*⁴ and Seal *et al.*⁵ 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

AFHSC reports on anxiety disorders in the following reports:

- Periodic MSMR articles on mental disorders and associated hospitalizations, outpatient medical encounters, and post-deployment illnesses.
- 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 2014	Case definition reviewed and updated by the AFHSC Surveillance Methods and Standards (SMS) working group.
July 2012	Case definition reviewed and adopted by AFHSC Surveillance Methods and Standards working group.
Nov 2010	Case definition developed and reviewed by AFHSC MSMR staff.

Comments

Burden of Disease Reports: AFHSC 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 ICD-9-CM codes, into 139 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.⁶ In general, the GBD system groups diagnoses with common pathophysiologic or etiologic bases and/or significant international health policymaking importance.

The AFHSC 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,

⁴ 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.

⁵ 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.

⁶ 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.



adjustment, mood, tobacco dependence, psychotic, personality, somatoform, and all other mental disorders.⁷

Because reports on disease burden are based on the total number of medical encounters for a specific condition, a slightly different case definition is used for these analyses. The case definition requires only “one inpatient or outpatient medical encounter with any defining ICD9 codes between 001 and 999” and uses the diagnosis in the *primary* diagnostic position only. An individual is allowed one medical encounter per condition per day.

Comprehensive AFHSC Mental Health Reports: For analyses and reports requiring data on *all* mental disorders, AFHSC includes all mental health diagnoses that fall within the range of ICD-9-CM codes 290-319 (mental disorders) with a few exceptions.

- ICD9 code 305.1 (tobacco use disorder) 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 codes 299.xx (pervasive developmental disorders) and ICD9 codes 317.xx -319.xx (mild, other, and unspecified intellectual disabilities) are not included as these conditions do not represent mental health disorders that AFHSC is trying to track with these reports.

⁷ Armed Forces Health Surveillance Center. Absolute and Relative Morbidity Burdens Attributable to Various Illnesses and Injuries, U.S. Armed Forces, 2011. *Medical Surveillance Monthly Report (MSMR)*. 2012 April; Vol.19 (4): 4- 9.

