

ADJUSTMENT DISORDERS

Does not include Acute Stress Reaction or Post Traumatic Stress Disorder (PTSD); See “Post-Traumatic Stress Disorder” and “Acute Stress Reaction” case definitions.

Background

This case definition was developed by the Armed Forces Health Surveillance Division (AFHSD) 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 adjustment disorders and other mental health diagnoses.

Clinical Description

An adjustment disorder is a psychological response to an identifiable stressor or group of stressors that cause(s) significant emotional or behavioral symptoms. Symptoms cause marked distress in excess of what would normally be expected in response to a stressful life event. Symptoms must occur *within* three months of the stressor and not related to another mental health disorder or part of normal grieving.²

Case Definition and Incidence Rules

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

- *One hospitalization* with a case defining diagnosis of adjustment disorder (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 adjustment 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 a case defining diagnosis of adjustment disorder (see ICD9 and ICD10 code lists below) in the *first or second* diagnostic position.

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 case defining diagnosis of adjustment disorder.

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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.

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



Case Definition and Incidence Rules *(continued)*

- 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
Adjustment disorders	F43.2 (adjustment disorders)	309 (adjustment reaction)
	- F43.20 (adjustment disorder, unspecified)	309.9 (unspecified adjustment reactions)
	- F43.21 (adjustment disorder with depressed mood)	309.0 (adjustment disorder with depressed mood) 309.1 (prolonged depressive reaction)
	- F43.22 (adjustment disorder with anxiety)	- 309.24 (adjustment disorder with anxiety)
	- F43.23 (adjustment disorder with mixed anxiety and depressed mood)	- 309.28 (adjustment disorder with mixed anxiety and depressed mood)
	- F43.24 (adjustment disorder with disturbance of conduct)	309.3 (adjustment disorder with disturbance of conduct)
	- F43.25 (adjustment disorder with mixed disturbance of emotions and conduct)	309.4 (adjustment disorder with mixed disturbance of emotions and conduct)
	- F43.29 (adjustment disorder with other symptoms)	- 309.29 (other adjustment reactions with predominant disturbance of other emotions)
	F43.8 (other reactions to severe stress)	309.8 (other specified adjustment reactions) - 309.82 (adjustment reaction with physical symptoms) - 309.83 (adjustment reaction with withdrawal) - 309.89 (other specified adjustment reaction)
	F43.9 (reaction to severe stress, unspecified)	309.9 (above) 309.2 (adjustment reaction with predominant disturbance of other emotions)

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Adjustment disorders of childhood	F93.0 (separation anxiety disorder of childhood)	- 309.21 (separation anxiety disorder)
	F94.8 (other childhood disorders of social functioning)	- 309.22 (emancipation disorder of adolescence and early adult life) - 309.23 (specific academic or work inhibition) - 303.29 (other adjustment reactions with predominant disturbance of other emotions)
	F94.9 (childhood disorder of social functioning, unspecified)	<i>Translated codes too broad for inclusion.</i>

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 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. 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 adjustment disorder would have a second encounter within that interval. Also, adjustment disorders generally do not persist for longer than 6 months.

Code Set Determination and Rationale

- In August 2021, the following codes associated with adjustment disorders of childhood were added back into the code set: ICD10 F93.0, F94.8, F94.9. Given the age of the active duty population, the codes are not frequently found in the data; however, analyses of the data showed that some of the corresponding ICD9 codes were being used. Investigators should also consider including these codes in analyses of dependents and beneficiary summaries.
 - ICD9 309.21 (separation anxiety disorder); approximately 125 cases per year.
 - ICD9 309.22 (emancipation disorder of adolescence, including early adult life); approximately 10 cases per year.
 - ICD9 309.23 (specific academic or work inhibition); approximately 120-595 cases per year and a trend that is increasing over time.
- In September 2018, ICD10 codes F93.0 (separation anxiety disorder of childhood), F94.8 (other childhood disorders of social functioning) and F94.9 (childhood disorder of social functioning, unspecified) were removed from the code set. In ICD10, the codes are specific to pediatric patients aged 0-17 and refer to specific disorders of childhood rather than to adjustment reactions. No retroactive changes to the corresponding ICD9 codes were made.
- ICD9 308* / ICD10 F43.0 (acute reaction to stress) is not included in this code set because adjustment disorders, by definition, are marked by symptoms lasting longer than 1 month.



- ICD9 309.81/ICD10 F43.1 (post-traumatic stress disorder) is not included this code set because (1) PTSD is generally categorized as an anxiety disorder– not an adjustment disorder–provoked by severe psychological trauma; (2) adjustment disorders may occur in response to stressors of lesser severity; and (3) the symptoms of PTSD differ from those of adjustment disorders and tend to last longer.
- 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 and 10th Revisions.

Reports

The AFHSD reports on adjustment 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

Jan 2022	Case definition reviewed and updated by the AFHSD Surveillance Methods and Standards (SMS) working group.
Sep 2018	Case definition reviewed and updated by the Armed Forces Health Surveillance Branch (AFHSB) SMS working group.
Dec 2014	Case definition reviewed and updated by the AFHSC SMS working group.
Jul 2012	Case definition reviewed and adopted by AFHSC SMS working group.
Nov 2010	Case definition developed by the AFHSC <i>MSMR</i> staff.

Comments

Burden of Disease Reports:

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

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,

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.

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.



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 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)

⁶ 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.

