

ALLERGIC RHINITIS

Includes Vasomotor Rhinitis

Background

This case definition was developed by the Armed Forces Health Surveillance Center (AFHSC) for the purpose of epidemiological surveillance of a condition important to military-associated populations. Allergic rhinitis is a common cause of troubling symptoms and of lost-duty time associated with obtaining health care in the Armed Forces, especially during the spring and fall allergy seasons.¹ While allergic rhinitis does not cause significant disability, its symptoms and the potential side effects of treatment can degrade the performance of physically and mentally demanding tasks.²

Clinical Description

Allergic rhinitis is characterized by sneezing; rhinorrhea; obstruction of the nasal passages; conjunctival, nasal, and pharyngeal itching; and lacrimation, all occurring in a temporal relationship to allergen exposure. Although commonly seasonal due to elicitation by airborne pollens, it can be perennial in an environment of chronic exposure to other allergens. The diagnosis of seasonal allergy depends largely on an accurate history of occurrence coincident with the pollination of the offending weeds, grasses, or trees. Symptoms can usually be controlled with a combination of environmental measures, medications, and immunotherapy. The most commonly prescribed medications for allergic rhinitis are H₁ antihistamines. Although efficacious, these medicines are often associated with drowsiness and performance impairment.³

Case Definition and Incidence Rules

For surveillance purposes, a case of allergic rhinitis is defined as:

- *One outpatient medical encounter* with any of the defining diagnoses of allergic rhinitis (see ICD9 and ICD10 code lists below) in *any* diagnostic position.

Incidence rules:

For individuals who meet the case definition:

- The incidence date is considered the date of the first outpatient medical encounter that includes a diagnosis of allergic rhinitis.
- An individual is considered an incident case *once every 30 days*.

Exclusions:

- None

¹ Armed Forces Health Surveillance Center. Allergic Rhinitis, U.S. Armed Forces, 1998-2007. *Medical Surveillance Monthly Report (MSMR)*. 2008 June; Vol 15(5): pp. 8-11.

² Spector SL. Overview of comorbid associations of allergic rhinitis. *J Allergy Clin Immunol*. 1997 Feb;99(2):S773-80.

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:

Condition	ICD-10-CM Codes	ICD-9-CM Codes
Allergic Rhinitis	J30 Vasomotor and allergic rhinitis	477 Allergic rhinitis
	J30.0 (vasomotor rhinitis)	477.9 (below)
	J30.1 (allergic rhinitis due to pollen)	477.0 (allergic rhinitis due to pollen)
	J30.2 (other seasonal allergic rhinitis)	477.9 (below)
	J30.5 (allergic rhinitis due to food)	477.1 (allergic rhinitis due to food)
	J30.8 (other allergic rhinitis)	
	- J30.81 (allergic rhinitis due to animal hair and dander; cat, dog)	477.2 (allergic rhinitis due to animal hair and dander; cat, dog)
	- J30.89 (other allergic rhinitis – perennial)	477.8 (allergic rhinitis due to other allergen)
	- J30.2 (above)	
	J30.9 (allergic rhinitis, unspecified) J30.0 (above)	477.9 (allergic rhinitis, cause unspecified)

Development and Revisions

- In April of 2014 the case definition was updated to include ICD10 codes.
- This case definition was developed in June of 2008 by the Medical Surveillance Monthly Report (MSMR) staff for use in a MSMR article on allergic rhinitis.¹ The definition was developed based on reviews of the ICD9 codes, the scientific literature, and previous AFHSC analyses.

Case Definition and Incidence Rule Rationale

- An individual is considered an incident once every 30 days in an effort to appropriately attribute incident episodes of *seasonal* allergic rhinitis (i.e., rhinitis due to exposures to pollens of specific trees, grasses, weeds, etc.) to the seasons in which the instigating allergens are present. Use of this incidence rule may overestimate incident cases because individuals with *perennial* or *seasonal* allergic rhinitis (i.e., rhinitis due to exposures to dust, dander, molds, in persistently contaminated environments) may be counted multiple times.

To minimize the overestimation of cases associated with this incidence rule, investigators may want to consider using a gap in care rule (e.g., an individual would only be considered a new incident case if at least 30 days have passed between medical encounters with a case defining diagnosis of allergic rhinitis.)



Code Set Determination and Rationale

- Vasomotor rhinitis (ICD10 code J30.0) is included in the code set as the condition is difficult to differentiate from allergic rhinitis based on signs and symptoms alone. The minimum level of diagnostic testing needed to differentiate between the two types has also not been established.⁴

Reports

None

Review

Apr 2014	Case definition reviewed and updated by the AFHSC Surveillance Methods and Standards (SMS) working group
Nov 2011	Case definition reviewed and adopted by the AFHSC Surveillance Methods and Standards (SMS) working group.
Oct 2008	Case definition developed by AFHSC MSMR staff.

Comments

Limitations of case definition: It is likely that many service members with allergic rhinitis seek care from unit medical personnel or treat themselves with over-the-counter medications. Because such episodes are not documented with electronic medical records, surveillance studies that use this case definition will likely underestimate the actual numbers of individuals affected as well as health care costs associated with treatment.

⁴ Management of Allergic and Nonallergic rhinitis. Evidence Report/Technology Assessment Number 54. AHRQ Publication No. 02-E024, May 2002. Rockville, Md.: Agency for Healthcare Research and Quality, 2002. Accessed online March 21, 2014 at <http://www.ncbi.nlm.nih.gov/books/NBK36530>

