

MIGRAINE HEADACHE

Background

This case definition was developed by the Armed Forces Health Surveillance Branch (AFHSB) for the purpose of epidemiological surveillance of a condition important to military-associated populations. Migraine headaches are a leading cause of medical encounters and lost duty time among military members. During migraine attacks, the military operational capabilities of those affected may be sharply reduced.¹

Clinical Description

Migraine is a neurovascular syndrome that is generally manifested as recurrent, severe headaches that can be debilitating. Migraine headaches are typically throbbing, localized, and very painful. They are often distinguishable from other types of headaches by characteristic symptoms such as nausea, increased sensitivity to light and sound, and dizziness. Migraines are often preceded by neurologic symptoms (“migraine aura”) which may include blurred or obstructed vision, skin numbness or tingling, exaggerated responses to painful stimuli, and momentary loss of consciousness (syncope).²

Case Definition and Incidence Rules

For surveillance purposes, a case of migraine headache is defined as:

- *One hospitalization* with any of the defining diagnoses of migraine (see ICD9 and ICD10 code lists below) in the *any* diagnostic position; or
- *One outpatient medical encounter* with any of the defining diagnoses of migraine (see ICD9 and ICD10 code lists below) in the *primary* diagnostic position.

Incidence rules:

For individuals who meet the case definition:

- If counting multiple migraine events in one individual, an individual is considered an incident case only *once every 7 days*.
- The incidence date is considered the date of the first hospitalization or outpatient medical encounter that includes a defining diagnosis of migraine.
- Each individual is considered an incident case only *once per lifetime*.

Exclusions:

- None

¹ Armed Forces Health Surveillance Center. Risk Factors for Migraine after OEF/OIF Deployment, Active Component, U.S. Armed Forces. *Medical Surveillance Monthly Report (MSMR)*. 2009 December; 16(12):10-13.

² Armed Forces Health Surveillance Center. Migraine and Other Headaches, Active Components, U.S. Armed Forces, 2001-2007. *Medical Surveillance Monthly Report (MSMR)*. 2008 May; 15(4):6-10.



Codes

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

Condition	ICD-10-CM Codes	ICD-9-CM Codes
Migraine headache	<i>G43 (migraine)</i>	<i>346 (migraine)</i>
	<i>G43.0 (migraine without aura)</i>	<i>346.1 (migraine without aura...)</i>
	G43.00 (migraine without aura, <i>not intractable...</i>)	- 346.10 (without mention of intractable migraine without mention of status migrainosus)
	- G43.001 (with status migrainosus)	- 346.11 (with intractable migraine, so stated, without mention of status migrainosus)
	- G43.009 (without status migrainosus)	- 346.12 (without mention of intractable migraine with status migrainosus)
	G43.01 (migraine without aura, <i>intractable...</i>)	- 346.13 (with intractable migraine, so stated, with status migrainosus)
	- G43.011 (with status migrainosus)	
	- G43.019 (without status migrainosus)	
	<i>G43.1 (migraine with aura)</i>	<i>346.0 (migraine with aura...)</i>
	G43.10 (migraine with aura, <i>not intractable...</i>)	- 346.00 (without mention of intractable migraine without mention of status migrainosus)
	- G43.101 (with status migrainosus)	- 346.01 (with intractable migraine, so stated, without mention of status migrainosus)
	- G43.109 (without status migrainosus)	- 346.02 (without mention of intractable migraine with status migrainosus)
	G43.11 (migraine with aura, <i>intractable...</i>)	- 346.03 (with intractable migraine, so stated, with status migrainosus)
	- G43.111 (with status migrainosus)	
	- G43.119 (without status migrainosus)	
	<i>G43.4 (hemiplegic migraine...)</i>	<i>346.3 (hemiplegic migraine...)</i>
	G43.40 (hemiplegic migraine, <i>not intractable...</i>)	- 346.30 (without mention of intractable migraine without mention of status migrainosus)
	- G43.401 (with status migrainosus)	- 346.31 (with intractable migraine, so stated, without mention of status migrainosus)
	- G43.409 (without status migrainosus)	- 346.32 (without mention of intractable migraine with status migrainosus)
	G43.41 (hemiplegic migraine, <i>intractable...</i>)	- 346.33 (with intractable migraine, so stated, with status migrainosus)
	- G43.411 (with status migrainosus)	
	- G43.419 (without status migrainosus)	
	<i>G43.5 (persistent migraine aura without cerebral infarction)</i>	<i>346.5 (persistent migraine aura without cerebral infarction...)</i>
	G43.50 (persistent migraine aura without cerebral infarction, <i>not intractable...</i>)	- 346.50 (without mention of intractable migraine without mention of status migrainosus)
	- G43.501 (with status migrainosus)	- 346.51 (with intractable migraine, so stated, without mention of status migrainosus)
	- G43.509 (without status migrainosus)	



G43.51 (persistent migraine aura without cerebral infarction, <i>intractable...</i>)	migrainosus)
- G43.511 (with status migrainosus)	- 346.52 (without mention of intractable migraine with status migrainosus)
- G43.519 (without status migrainosus)	- 346.53 (with intractable migraine, so stated, with status migrainosus)
<i>G43.6 (persistent migraine aura with cerebral infarction)</i>	<i>346.6 (persistent migraine with cerebral infarction...)</i>
G43.60 (persistent migraine aura with cerebral infarction, <i>not intractable...</i>)	- 346.60 (without mention of intractable migraine without mention of status migrainosus)
- G43.601 (with status migrainosus)	- 346.61 (with intractable migraine, so stated, without mention of status migrainosus)
- G43.609 (without status migrainosus)	
G43.61 (persistent migraine aura with cerebral infarction, <i>intractable...</i>)	- 346.62 (without mention of intractable migraine with status migrainosus)
- G43.611 (with status migrainosus)	- 346.63 (with intractable migraine, so stated, with status migrainosus)
- G43.619 (without status migrainosus)	
<i>G43.7 (chronic migraine without aura)</i>	<i>346.7 (chronic migraine without aura...)</i>
G43.70 (chronic migraine without aura, <i>not intractable...</i>)	- 346.70 (without mention of intractable migraine without mention of status migrainosus)
- G43.701 (with status migrainosus)	- 346.71 (with intractable migraine, so stated, without mention of status migrainosus)
- G43.709 (without status migrainosus)	
G43.71 (chronic migraine without aura, <i>intractable...</i>)	- 346.72 (without mention of intractable migraine with status migrainosus)
- G43.711 (chronic migraine without aura, intractable, with status migrainosus)	- 346.73 (with intractable migraine, so stated, with status migrainosus)
- G43.719 (chronic migraine without aura, intractable, without status migrainosus)	
<i>G43.B (ophthalmoplegic migraine...)</i>	<i>346.2 (variants of migraine, not elsewhere classified...)</i>
- G43.B0 (not intractable)	- 346.20 (without mention of intractable migraine without mention of status migrainosus)
- G43.B1 (intractable)	
<i>G43.C (periodic headache syndromes in child or adult...)</i>	
- G43.C0 (not intractable)	
- G43.C1 (intractable)	
<i>G43.8 (other migraine)</i>	<i>346.8 (other forms of migraine...)</i>
G43.80 (other migraine, <i>not intractable...</i>)	- 346.80 (without mention of intractable migraine without mention of status migrainosus)
- G43.801 (with status migrainosus)	
- G43.809 (without status migrainosus)	- 346.81 (with intractable migraine, so

G43.81 (other migraine, <i>intractable...</i>)	stated, without mention of status migrainosus)
- G43.811 (with status migrainosus)	- 346.82 (without mention of intractable migraine with status migrainosus)
- G43.819 (without status migrainosus)	- 346.83 (with intractable migraine, so stated, with status migrainosus)
G43.82 (menstrual migraine, not <i>intractable...</i>)	346.4 (<i>menstrual migraine...</i>)
- G43.821 (with status migrainosus)	- 346.40 (without mention of intractable migraine without mention of status migrainosus)
- G43.829 (without status migrainosus)	- 346.41 (with intractable migraine, so stated, without mention of status migrainosus)
G43.83 (menstrual migraine, <i>intractable...</i>)	- 346.42 (without mention of intractable migraine with status migrainosus)
- G43.831 (with status migrainosus)	- 346.43 (with intractable migraine, so stated, with status migrainosus)
- G43.839 (without status migrainosus)	
G43.9 (<i>migraine, unspecified</i>)	346.9 (<i>migraine, unspecified...</i>)
G43.90 (migraine, unspecified, <i>not intractable...</i>)	- 346.90 (without mention of intractable migraine without mention of status migrainosus)
- G43.901 (with status migrainosus)	- 346.91 (with intractable migraine, so stated, without mention of status migrainosus)
- G43.909 (without status migrainosus)	- 346.92 (without mention of intractable migraine with status migrainosus)
G43.91 (migraine, unspecified, <i>intractable...</i>)	- 346.93 (with intractable migraine, so stated, with status migrainosus)
- G43.911 (with status migrainosus)	
- G43.919 (without status migrainosus)	

Development and Revisions

- In January of 2017 the case definition was updated to include ICD10 codes.
- The case definition was originally developed in May of 2008 by the *Medical Surveillance Monthly Report (MSMR)* staff for an article on migraine headaches.² Experts on migraine headaches from the Uniformed Services University for Health Sciences were consulted during the development of this definition. The definition was developed based on reviews of the ICD9 codes, the scientific literature, and previous AFHSC analyses.

Code Set Determination and Rationale

- The SMS workgroup considered the ICD10 codes G43.A- (cyclical vomiting) for inclusion in the code set. Although cyclical vomiting may be associated with migraine headaches, cyclical vomiting also occurs and is diagnosed independently of diagnoses of a migraine, therefore, C43.A- is not included in the code set. The SMS workgroup also reasoned that providers would likely use a more specific migraine code for a patient presenting with a migraine headache and cyclical vomiting.



- The SMS workgroup considered ICD10 the codes G43.D- (abdominal migraine) for inclusion in the code set. The term abdominal migraine refers to a type of abdominal pain, primarily diagnosed in children. While the condition is seen more frequently in children whose family members experience typical migraine symptoms, the term is not used to describe a headache; therefore, G43.D- is not included in this code set.

Reports

AFHSB reports on migraine headaches in the following reports:

- None

Review

Jan 2017	Case definition reviewed and updated by the AFHSB Surveillance Methods and Standards (SMS) working group.
Mar 2011	Case definition reviewed and adopted by AFHSC Surveillance Methods and Standards (SMS) working group.
May 2008	Case definition developed and adopted by the AFHSC MSMR staff.

Comments

None

