

NON-MELANOMA SKIN CANCER

Includes Basal Cell, Squamous Cell and Carcinoma In Situ of Skin

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.

Clinical Description

Non-melanoma skin cancers (NMSCs) are the most common malignancies in the U.S.¹ About 80% of NMSCs are basal cell carcinomas (BCC) and 20% squamous cell carcinomas (SCC). Non-melanoma skin cancer most often develops on areas of skin regularly exposed to sun, such as face, ears, hands, shoulders, upper chest and back. Signs of NMSC include skin changes, a sore that does not heal, ulceration, discoloration, and changes in size, shape, and color of existing moles. Risk factors include light skin tone, light-colored eyes and hair and exposure to solar ultraviolet (UV) radiation.² A biopsy is usually done to confirm the diagnosis along with complete removal of the cancerous lesion.³ The risk of a subsequent NMSC has been shown to be as high as 50% within a 10 year period.⁴

Case Definition and Incidence Rules

For surveillance purposes, a case of NMSC is defined as:

- *One hospitalization* with any of the defining diagnoses of NMSC or carcinoma in-situ of the skin (see ICD9 and ICD10 code lists below) in *any* diagnostic position; or
- *Two or more outpatient medical encounters*, occurring *within a 90-day period*, with any of the defining diagnoses of NMSC or carcinoma in situ of the skin (see ICD9 and ICD10 code lists below) in any diagnostic position. To be classified as a case, both diagnostic codes must refer to the same body location (e.g. lip), or include one site-specific code (e.g. lip) and one “other” or “unspecified” site code.

Incidence rules:

For individuals who meet the case definition:

- An individual may be counted as an incident case multiple times during the surveillance period *if* the case defining diagnoses are coded for different body locations and the diagnoses for each location satisfies the case definition.

(continued on next page)

¹ Rogers HW, Weinstock MA, Feldman SR, Coldiron BM. Incidence estimate of nonmelanoma skin cancer (keratinocyte carcinomas) in the U.S. population, 2012. *JAMA Dermatol.* 2015;151(10):1081-86.

² Lee, T., Taubman, S., and Williams, V. Armed Forces Health Surveillance Branch. Incident Diagnosis of Non-Melanoma Skin Cancer, Active Component, U.S. Armed Forces, 2005-2014. *Medical Surveillance Monthly Report (MSMR).* 2016 Dec; 23(12): 2-6.

³ Cancer Facts and Figures 2016. American Cancer Society. www.cancer.org/acs/groups/content/@research/documents/document/acspc-047079.pdf. Accessed on 7 December 2016.

⁴Richmond-Sinclair NM, Pandeya N, Ware RS, et al. Incidence of basal cell carcinoma multiplicity and detailed anatomic distribution: longitudinal study of an Australian population. *J Invest Dermatol.* 2009;129(2):323–328.



Case Definition and Incidence Rules *(continued)*

- For the same body location, an individual is considered a new incident case if *at least 365 days* have passed since the last medical encounter with a case defining diagnosis of NMSC or carcinoma in situ of the skin (see explanation of “gap” rule below).
- The incidence date is considered the date of the first hospitalization or outpatient medical encounter that includes a defining diagnosis of NMSC or carcinoma in situ of the skin.

Exclusions:

- None

Codes

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

Condition	ICD-10-CM Codes	ICD-9-CM Codes
<i>Non-malignant skin cancer</i>	C44 (other and unspecified malignant neoplasm of skin)	173 (other and unspecified malignant neoplasm of skin)
Lip	<i>C44.0 (other and unspecified malignant neoplasm of skin of lip)</i>	<i>173.0 (other and unspecified malignant neoplasm of skin of lip)</i>
	- C44.00 (unspecified malignant neoplasm of skin of lip)	- 173.00 (unspecified malignant neoplasm of skin of lip)
	- C44.01 (basal cell carcinoma of skin of lip)	- 173.01 (basal cell carcinoma of skin of lip)
	- C44.02 (squamous cell carcinoma of skin of lip)	- 173.02 (squamous cell carcinoma of skin of lip)
	- C44.09 (other specified malignant neoplasm of skin of lip)	- 173.09 (other specified malignant neoplasm of skin of lip)
Eyelid, including canthus	<i>C44.1 (other and unspecified malignant neoplasm of skin of eyelid, including canthus)</i>	<i>173.1 (other and unspecified malignant neoplasm of skin of eyelid, including canthus)</i>
	C44.10 (unspecified malignant neoplasm of eyelid, including canthus...)	- 173.10 (unspecified malignant neoplasm of skin of eyelid, including canthus)
	- C44.101 (<i>unspecified</i> eyelid, including canthus)	
	- C44.102 (<i>right</i> eyelid, including canthus)	
	- C44.109 (<i>left</i> eyelid, including canthus)	
		<i>(continued on next page)</i>



	C44.11 (basal cell carcinoma of skin of eyelid, including canthus...)	- 173.11 (basal cell carcinoma of skin of eyelid, including canthus)
	- C44.111 (<i>unspecified</i> eyelid, including canthus)	
	- C44.112 (<i>right</i> eyelid, including canthus)	
	- C44.119 (<i>left</i> eyelid, including canthus)	
	C44.12 (squamous cell carcinoma of eyelid, including canthus)	- 173.12 (squamous cell carcinoma of eyelid, including canthus)
	- C44.121 (<i>unspecified</i> eyelid, including canthus)	
	- C44.122 (<i>right</i> eyelid, including canthus)	
	- C44.129 (<i>left</i> eyelid, including canthus)	
	C44.19 (other specified malignant neoplasm of eyelid, including canthus)	- 173.19 (other specified malignant neoplasm of eyelid, including canthus)
	- C44.191 (<i>unspecified</i> eyelid, including canthus)	
	- C44.192 (<i>right</i> eyelid, including canthus)	
	- C44.199 (<i>left</i> eyelid, including canthus)	
Ear	<i>C44.2 (other and unspecified malignant neoplasm of skin of ear and external auricular canal)</i>	<i>173.2 (other and unspecified malignant neoplasm of skin of ear and external auditory canal)</i>
	C44.20 (unspecified malignant neoplasm of skin of ear and external auricular canal...)	- 173.20 (unspecified malignant neoplasm of skin of ear and external auditory canal)
	- C44.201 (<i>unspecified</i> ear and external auricular canal)	
	- C44.202 (<i>right</i> ear and external auricular canal)	
	- C44.209 (<i>left</i> ear and external auricular canal)	
	C44.21 (basal cell carcinoma of skin of ear and external auricular canal...)	- 173.21 (basal cell carcinoma of skin of ear and external auditory canal)
	- C44.211 (<i>unspecified</i> ear and external auricular canal)	
	- C44.212 (<i>right</i> ear and external auricular canal)	
	- C44.219 (<i>left</i> ear and external auricular canal)	
	C44.22 (squamous cell carcinoma of skin of ear and external auricular canal...)	- 173.22 (squamous cell carcinoma of skin of ear and external auditory canal)
	- C44.221 (<i>unspecified</i> ear and external auricular canal)	
		(continued on next page)

	<ul style="list-style-type: none"> - C44.222 (<i>right ear and external auricular canal</i>) 		
	<ul style="list-style-type: none"> - C44.229 (<i>left ear and external auricular canal</i>) 		
	C44.29 (<i>other specified malignant neoplasm of skin of ear and external auricular canal ...</i>)	<ul style="list-style-type: none"> - 173.29 (<i>other specified malignant neoplasm of skin of ear and external auditory canal</i>) 	
	<ul style="list-style-type: none"> - C44.291 (<i>unspecified ear and external auricular canal</i>) 		
	<ul style="list-style-type: none"> - C44.292 (<i>right ear and external auricular canal</i>) 		
	<ul style="list-style-type: none"> - C44.299 (<i>left ear and external auricular canal</i>) 		
Skin of other and unspecified parts of face	<i>C44.3 (other and unspecified malignant neoplasm of skin and unspecified parts of face)</i>	<i>173.3 (other and unspecified malignant neoplasm of skin of other and unspecified parts of face)</i>	
	C44.30 (<i>unspecified malignant neoplasm of skin of other and unspecified parts of face ...</i>)	<ul style="list-style-type: none"> - 173.30 (<i>unspecified malignant neoplasm of skin of other and unspecified parts of face</i>) 	
	<ul style="list-style-type: none"> - C44.300 (<i>unspecified malignant neoplasm of skin of unspecified parts of face</i>) 		
	<ul style="list-style-type: none"> - C44.301 (<i>unspecified malignant neoplasm of skin of nose</i>) 		
	<ul style="list-style-type: none"> - C44.309 (<i>unspecified malignant neoplasm of skin of other parts of face</i>) 		
	C44.31 (<i>basal cell carcinoma of skin of other and unspecified parts of face ...</i>)	<ul style="list-style-type: none"> - 173.31 (<i>basal cell carcinoma of skin of other and unspecified parts of face</i>) 	
	<ul style="list-style-type: none"> - C44.310 (<i>basal cell carcinoma of skin of unspecified parts of face</i>) 		
	<ul style="list-style-type: none"> - C44.311 (<i>basal cell carcinoma of skin of nose</i>) 		
	<ul style="list-style-type: none"> - C44.319 (<i>basal cell carcinoma of skin of other parts of face</i>) 		
	C44.32 (<i>squamous cell carcinoma of skin of other and unspecified parts of face ...</i>)	<ul style="list-style-type: none"> - 173.32 (<i>squamous cell carcinoma of skin of other and unspecified parts of face</i>) 	
	<ul style="list-style-type: none"> - C44.320 (<i>squamous cell carcinoma of skin of unspecified parts of face</i>) 		
	<ul style="list-style-type: none"> - C44.321 (<i>squamous cell carcinoma of skin of nose</i>) 		
	<ul style="list-style-type: none"> - C44.329 (<i>squamous cell carcinoma of skin of other parts of face</i>) 		
			<i>(continued on next page)</i>

	<p>C44.39 (other specified malignant neoplasm of skin of other and unspecified parts of face...)</p> <p>- C44.390 (other <i>specified</i> malignant neoplasm of skin of unspecified parts of face)</p> <p>- C44.391 (other specified malignant neoplasm of skin of nose)</p> <p>- C44.399 (other specified malignant neoplasm of skin of other parts of face)</p>	<p>- 173.39 (other specified malignant neoplasm of skin of other and unspecified parts of face)</p>
Skin of scalp and neck	<p><i>C44.4 (other and unspecified malignant neoplasm of skin of scalp and neck)</i></p>	<p><i>173.4 (other and unspecified malignant neoplasm of scalp and skin of neck)</i></p>
	<p>- C44.40 (unspecified malignant neoplasm of skin of scalp and neck)</p>	<p>- 173.40 (unspecified malignant neoplasm of scalp and skin of neck)</p>
	<p>- C44.41 (basal cell carcinoma of skin of scalp and neck)</p>	<p>- 173.41 (basal cell carcinoma of scalp and skin of neck)</p>
	<p>- C44.42 (squamous cell carcinoma of skin of scalp and neck)</p>	<p>- 173.42 (squamous cell carcinoma of scalp and skin of neck)</p>
	<p>- C44.49 (other specified malignant neoplasm of skin of scalp and neck)</p>	<p>- 173.49 (other specified malignant neoplasm of scalp and skin of neck)</p>
Skin of trunk	<p><i>C44.5 (other and unspecified malignant neoplasm of skin of trunk)</i></p>	<p><i>173.5 (other and unspecified malignant neoplasm of skin of trunk, except scrotum)</i></p>
	<p>- C44.50 (unspecified malignant neoplasm of skin of trunk)</p>	<p>- 173.50 (unspecified malignant neoplasm of skin of trunk, except scrotum)</p>
	<p>- C44.500 (unspecified malignant neoplasm of <i>anal</i> skin)</p>	
	<p>- C44.501 (unspecified malignant neoplasm of skin of <i>breast</i>)</p>	
	<p>- C44.509 (unspecified malignant neoplasm of skin of <i>other</i> part of trunk)</p>	
	<p>- C44.51 (basal cell carcinoma of skin of trunk)</p>	<p>- 173.51 (basal cell carcinoma of skin of trunk, except scrotum)</p>
	<p>- C44.510 (basal cell carcinoma of <i>anal</i> skin)</p>	
	<p>- C44.511 (basal cell carcinoma of skin of <i>breast</i>)</p>	
	<p>- C44.519 (basal cell carcinoma of skin of other part of trunk)</p>	
	<p>- C44.52 (squamous cell carcinoma of skin of trunk)</p>	<p>- 173.52 (squamous cell carcinoma of skin of trunk, except scrotum)</p>
	<p>- C44.520 (squamous cell carcinoma of <i>anal</i> skin)</p>	<p>(continued on next page)</p>

	<ul style="list-style-type: none"> - C44.521 (squamous cell carcinoma of skin of <i>breast</i>) 		
	<ul style="list-style-type: none"> - C44.529 (squamous cell carcinoma of skin of other part of trunk) 		
	<ul style="list-style-type: none"> - C44.59 (other specified malignant neoplasm of skin of trunk) 	<ul style="list-style-type: none"> - 173.59 (other specified malignant neoplasm of skin of trunk, except scrotum) 	
	<ul style="list-style-type: none"> - C44.590 (other specified malignant neoplasm of <i>anal</i> skin) 		
	<ul style="list-style-type: none"> - C44.591 (other specified malignant neoplasm of <i>breast</i>) 		
	<ul style="list-style-type: none"> - C44.599 (other specified malignant neoplasm of skin of other part of trunk) 		
Skin of upper limb, including shoulder	<i>C44.6 (other and unspecified malignant neoplasm of skin of upper limb, including shoulder)</i>	<i>173.6 (other and unspecified malignant neoplasm of skin of upper limb, including shoulder)</i>	
	<ul style="list-style-type: none"> - C44.60 (unspecified malignant neoplasm of skin of upper limb, including shoulder) 	<ul style="list-style-type: none"> - 173.60 (unspecified malignant neoplasm of skin of upper limb, including shoulder) 	
	<ul style="list-style-type: none"> - C44.601 (unspecified malignant neoplasm of skin of <i>unspecified</i> upper limb, including shoulder) 		
	<ul style="list-style-type: none"> - C44.602 (unspecified malignant neoplasm of skin of <i>right</i> upper limb, including shoulder) 		
	<ul style="list-style-type: none"> - C44.609 (unspecified malignant neoplasm of skin of <i>left</i> upper limb, including shoulder) 		
	<ul style="list-style-type: none"> - C44.61 (basal cell carcinoma of skin of upper limb, including shoulder) 	<ul style="list-style-type: none"> - 173.61 (basal cell carcinoma of skin of upper limb, including shoulder) 	
	<ul style="list-style-type: none"> - C44.611 (basal cell carcinoma of skin of <i>unspecified</i> upper limb, including shoulder) 		
	<ul style="list-style-type: none"> - C44.612 (basal cell carcinoma of skin <i>right</i> upper limb, including shoulder) 		
	<ul style="list-style-type: none"> - C44.619 (basal cell carcinoma of skin of <i>left</i> upper limb, including shoulder) 		
	<ul style="list-style-type: none"> - C44.62 (squamous cell carcinoma of skin of upper limb, including shoulder) 	<ul style="list-style-type: none"> - 173.62 (squamous cell carcinoma of skin of upper limb, including shoulder) 	
	<ul style="list-style-type: none"> - C44.621 (squamous cell carcinoma of skin of <i>unspecified</i> upper limb, including shoulder) 		
	<ul style="list-style-type: none"> - C44.622 (squamous cell carcinoma of skin <i>right</i> upper limb, including shoulder) 		
			<i>(continued on next page)</i>

	<ul style="list-style-type: none"> - C44.629 (squamous cell carcinoma of skin of <i>left</i> upper limb, including shoulder) 		
	<ul style="list-style-type: none"> - C44.69 (other specified malignant neoplasm of skin of upper limb, including shoulder) 	<ul style="list-style-type: none"> - 173.69 (other specified malignant neoplasm of skin of upper limb, including shoulder) 	
	<ul style="list-style-type: none"> - C44.691 (other specified malignant neoplasm of skin of <i>unspecified</i> upper limb, including shoulder) 		
	<ul style="list-style-type: none"> - C44.692 (other specified malignant neoplasm of skin of <i>right</i> upper limb, including shoulder) 		
	<ul style="list-style-type: none"> - C44.699 (other specified malignant neoplasm of skin of <i>left</i> upper limb, including shoulder) 		
Skin of lower limb, including hip	<i>C44.7 (other and unspecified malignant neoplasm of skin of lower limb, including hip)</i>	<i>173.7 (other and unspecified malignant neoplasm of skin of lower limb, including hip)</i>	
	<ul style="list-style-type: none"> - C44.70 (unspecified malignant neoplasm of skin of lower limb, including hip) 	<ul style="list-style-type: none"> - 173.70 (unspecified malignant neoplasm of skin of lower limb, including hip) 	
	<ul style="list-style-type: none"> - C44.701 (unspecified malignant neoplasm of skin of <i>unspecified</i> lower limb, including hip) 		
	<ul style="list-style-type: none"> - C44.702 (unspecified malignant neoplasm of skin of <i>right</i> lower limb, including hip) 		
	<ul style="list-style-type: none"> - C44.709 (unspecified malignant neoplasm of skin of <i>left</i> lower limb, including hip) 		
	<ul style="list-style-type: none"> - C44.71 (basal cell carcinoma of skin of lower limb, including hip) 	<ul style="list-style-type: none"> - 173.71 (basal cell carcinoma of skin of lower limb, including hip) 	
	<ul style="list-style-type: none"> - C44.711 (basal cell carcinoma of skin of <i>unspecified</i> lower limb, including hip) 		
	<ul style="list-style-type: none"> - C44.712 (basal cell carcinoma of skin <i>right</i> lower limb, including hip) 		
	<ul style="list-style-type: none"> - C44.719 (basal cell carcinoma of skin of <i>left</i> lower limb, including hip) 		
	<ul style="list-style-type: none"> - C44.72 (squamous cell carcinoma of skin of lower limb, including hip) 	<ul style="list-style-type: none"> - 173.72 (squamous cell carcinoma of skin of lower limb, including hip) 	
	<ul style="list-style-type: none"> - C44.721 (squamous cell carcinoma of skin of <i>unspecified</i> lower limb, including hip) 		
	<ul style="list-style-type: none"> - C44.722 (squamous cell carcinoma of skin <i>right</i> lower limb, including hip) 		
	<ul style="list-style-type: none"> - C44.729 (squamous cell carcinoma of skin of <i>left</i> lower limb, including hip) 		
			<i>(continued on next page)</i>

	<ul style="list-style-type: none"> - C44.79 (other specified malignant neoplasm of skin of lower limb, including hip) 	<ul style="list-style-type: none"> - 173.79 (other specified malignant neoplasm of skin of lower limb, including hip)
	<ul style="list-style-type: none"> - C44.791 (other specified malignant neoplasm of skin of <i>unspecified</i> lower limb, including hip) 	
	<ul style="list-style-type: none"> - C44.792 (other specified malignant neoplasm of skin of <i>right</i> lower limb, including hip) 	
	<ul style="list-style-type: none"> - C44.799 (other specified malignant neoplasm of skin of <i>left</i> lower limb, including hip) 	
Overlapping sites	<i>C44.8 (other and unspecified malignant neoplasm of overlapping sites of skin)</i>	<i>173.8 (other and unspecified malignant neoplasm of other specified sites of skin)</i>
	<ul style="list-style-type: none"> - C44.80 (unspecified malignant neoplasm of overlapping sites of skin) 	<ul style="list-style-type: none"> - 173.80 (unspecified malignant neoplasm of other specified sites of skin)
	<ul style="list-style-type: none"> - C44.81 (basal cell carcinoma of skin of overlapping sites of skin) 	<ul style="list-style-type: none"> - 173.81 (basal cell carcinoma of other specified sites of skin)
	<ul style="list-style-type: none"> - C44.82 (squamous cell carcinoma of overlapping sites of skin) 	<ul style="list-style-type: none"> - 173.82 (squamous cell carcinoma of other specified sites of skin)
	<ul style="list-style-type: none"> - C44.89 (other specified malignant neoplasm of overlapping sites of skin) 	<ul style="list-style-type: none"> - 173.89 (other specified malignant neoplasm of other specified sites of skin)
Unspecified	<i>C44.9 (other and unspecified malignant neoplasm skin, unspecified)</i>	<i>173.9 (other and unspecified malignant neoplasm of skin, site unspecified)</i>
	<ul style="list-style-type: none"> - C44.90 (unspecified malignant neoplasm of skin, <i>unspecified</i>) 	<ul style="list-style-type: none"> - 173.90 (unspecified malignant neoplasm of skin, site unspecified)
	<ul style="list-style-type: none"> - C44.91 (basal cell carcinoma of skin, unspecified) 	<ul style="list-style-type: none"> - 173.91 (basal cell carcinoma of skin, site unspecified)
	<ul style="list-style-type: none"> - C44.92 (squamous cell carcinoma of skin, unspecified) 	<ul style="list-style-type: none"> - 173.92 (squamous cell carcinoma of skin, site unspecified)
	<ul style="list-style-type: none"> - C44.99 (other specified malignant neoplasm of skin, unspecified) 	<ul style="list-style-type: none"> - 173.99 (other specified malignant neoplasm of skin, site unspecified)

Condition	ICD-10-CM Codes	ICD-9-CM Codes
Carcinoma in-situ of the skin	<i>D04 (carcinoma in situ of skin)</i>	<i>232 (carcinoma in situ of skin)</i>
	D04.0 (carcinoma in situ of skin of lip)	232.0 (carcinoma in situ of skin of lip)
	D04.1 (carcinoma of skin of eyelid, including canthus)	232.1 (carcinoma in situ of skin of eyelid, including canthus)
	<ul style="list-style-type: none"> - D04.10 (carcinoma in situ of skin of <i>unspecified</i> eyelid, including canthus) 	<i>(continued on next page)</i>
	<ul style="list-style-type: none"> - D04.11 (carcinoma in situ of skin of <i>right</i> eyelid, including canthus) 	



- D04.12 (carcinoma in situ of skin of <i>left</i> eyelid, including canthus)	
D04.2 (carcinoma in situ of skin of ear and external auricular canal)	232.2 (carcinoma in situ of skin of ear and external auditory canal)
- D04.20 (carcinoma in situ of skin of <i>unspecified</i> ear and external auricular canal)	
- D04.21 (carcinoma in situ of skin of <i>right</i> ear and external auricular canal)	
- D04.21 (carcinoma in situ of skin of <i>left</i> ear and external auricular canal)	
D04.3 (carcinoma in situ of skin of other and unspecified parts of face)	232.3 (carcinoma in situ of skin of other and unspecified parts of face)
- D04.30 (carcinoma in situ of skin of unspecified part of face)	
- D04.39 (carcinoma in situ of other parts of face)	
D04.4 (carcinoma in situ of scalp and skin of neck)	232.4 (carcinoma in situ of scalp and skin of neck)
D04.5 (carcinoma in situ of skin of trunk)	232.5 (carcinoma in situ of skin of trunk, except scrotum)
D04.6 (carcinoma in situ of skin of upper limb, including shoulder)	232.6 (carcinoma in situ of skin of upper limb, including shoulder)
- D04.60 (carcinoma in situ of skin of <i>unspecified</i> upper limb, including shoulder)	
- D04.61 (carcinoma in situ of skin of <i>right</i> upper limb, including shoulder)	
- D04.62 (carcinoma in situ of skin of <i>left</i> upper limb, including shoulder)	
D04.70 (carcinoma in situ of skin of skin of lower limb, including hip)	232.7 (carcinoma in situ of skin of skin of lower limb, including hip)
- D04.70 (carcinoma in situ of skin of <i>unspecified</i> lower limb, including hip)	
- D04.61 (carcinoma in situ of skin of <i>right</i> lower limb, including hip)	
- D04.62 (carcinoma in situ of skin of <i>left</i> lower limb, including hip)	
D04.8 (carcinoma in situ of other sites)	232.8 (carcinoma in situ of other specified sites of skin)
D04.9 (carcinoma in situ of skin, unspecified)	232.9 (carcinoma in situ of skin, site unspecified)



Development and Revisions

- In June of 2017 the case definition was updated to include ICD10 codes.
- This case definition was developed in December of 2016 by the Epidemiology and Analysis (E&A) staff for use in a MSMR article on non-melanoma skin cancer.¹ The definition was developed based on reviews of the ICD9 and ICD10 codes, the scientific literature, and previous AFHSB analyses.

Case Definition and Incidence Rule Rationale

- For the same body location, this case definition uses a 365-day “gap in care” incidence rule to define a new incident case of NMSC. Use of this methodology presumes that medical encounters for NMSC that occur within 365 days of a previous such encounter constitute follow-up care of the previously diagnosed case. The goal of the “gap in care” rule is to lessen the frequency with which encounters for follow-up care are treated as new incident cases of the condition. The “gap in care” rule differs slightly from an absolute 365-day incidence rule in which an individual may be considered an incident case once every 365 days

Code Set Determination and Rationale

- The code set for NMSC used in this case definition is based on code sets developed by Eide, MJ, *et. al.*⁵ and Rogers, HW, *et. al.*⁶ Eide’s case finding methodology compared ICD9 codes for NMSC alone, related Current Procedure Terminology (CPT) codes alone, and both ICD9 and CPT codes. Roger’s case finding methodology included NMSC ICD9 codes and carcinoma in situ codes.
- Codes ICD9 187.7 /ICD10 C63.2 (malignant neoplasm of scrotum) are not included in the case definition. While the codes may be used for malignant neoplasm of the *skin* of the scrotum, they are also used for primary and metastatic malignant neoplasms of the scrotum.
- Specific ICD9 codes for basal cell and squamous cell carcinoma were introduced into ICD-9-CM in November of 2011. Prior to 2011 these conditions could not be distinguished using ICD9 codes; both were coded using 173.x (other and unspecified malignant neoplasm of skin).

Reports

AFHSC reports on non-melanoma skin cancer in the following reports:

- Periodic MSMR articles; most recent December of 2016.

Review

Jun 2017	Case definition reviewed and adopted by the AFHSC Surveillance Methods and Standards (SMS) working group
Dec 2016	Case definition developed by the AFHSB Epidemiology and Analysis (E&A) staff

⁵ Eide, MJ, Krajenta, R, Johnson, D, et. al. Identification of patients with nonmelanoma skin cancer using health maintenance organization claims data. *Am J Epidemiol.*, Jan 2010, 171(1): 123-8.

⁶ Rogers, HW, Weinstock, MA, Feldman, SR, Coldiron, BM. Incidence Estimate of Nonmelanoma Skin Cancer (Keratinocyte Carcinomas) in the U.S. Population, 2012. *JAMA Dermatol.* Oct 2015, 151(10):1081-6.



Comments

None

