

## MALIGNANT MELANOMA; SKIN

*Includes Invasive Malignant Melanoma Only; Does Not Include Secondary Melanoma; For Malignant Melanoma In-Situ, See Corresponding Case Definition*

### Background

This case definition was developed by the Armed Forces Health Surveillance Center (AFHSB) for the purpose of epidemiological surveillance of a condition important to military-associated populations.

### Clinical Description

Malignant melanoma is a life threatening cancer of pigment producing cells (melanocytes). Melanocytes are distributed throughout the outer layer of the skin; in response to UV radiation (e.g., sunlight), they produce a pigment (melanin) that darkens the skin. When melanocytes become malignant, they can spread throughout the body, including to vital organs. In the U.S., malignant melanoma is the most lethal skin cancer and among the leading causes of cancer overall.<sup>1</sup>

### Case Definition and Incidence Rules

For surveillance purposes, a case of malignant melanoma is defined as:

- *Two or more hospitalizations or outpatient medical encounters* with any of the defining diagnoses of malignant melanoma in *any* diagnostic position (see ICD9 and ICD10 code lists below) following *at least one* medical encounter with a diagnostic procedure commonly used to evaluate clinically suspicious lesions; or
- *Five or more medical encounters* with any of the defining diagnoses of malignant melanoma (see ICD9 and ICD10 code lists below) in *any* diagnostic position if there are no recorded relevant diagnostic procedures.

#### **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 defining diagnosis of malignant melanoma.
- An individual is considered an incident case only *once per lifetime*.

#### **Exclusions:**

- None

<sup>1</sup> Armed Forces Health Surveillance Center. Incident Diagnosis of Malignant Melanoma, Active Components, U.S. Armed Forces, January 1998- June 2008. *Medical Surveillance Monthly Report (MSMR)*. 2008 Nov; 15(9): 6-9.



## Codes

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

Condition	ICD-10-CM Codes	ICD-9-CM Codes
Malignant melanoma	<i>C43 (malignant melanoma of skin)</i>	<i>172 (malignant melanoma of skin )</i>
	C43.0 (malignant melanoma of lip)	- 172.0 (malignant melanoma of skin of lip)
	C43.1 (malignant melanoma of eyelid, including canthus)	- 172.1 (malignant melanoma of eyelid, including canthus)
	- C43.10 (malignant melanoma of <i>unspecified</i> eyelid, including canthus)	
	- C43.11 (malignant melanoma of <i>right</i> eyelid, including canthus)	
	- C43.12 (malignant melanoma of <i>left</i> eyelid, including canthus)	
	C43.2 (malignant melanoma of ear and external auricular canal)	- 172.2 (malignant melanoma of ear and external auditory canal)
	- C43.20 (malignant melanoma of <i>unspecified</i> ear and external auricular canal)	
	- C43.21 (malignant melanoma of <i>right</i> ear and external auricular canal)	
	- C43.22 (malignant melanoma of <i>left</i> ear and external auricular canal)	
	C43.3 (malignant melanoma of other and unspecified part of face)	- 172.3 (malignant melanoma of skin of other unspecified parts of the face)
	- C43.30 (malignant melanoma of <i>unspecified</i> part of face)	
	- C43.31 (malignant melanoma of nose)	
	- C43.39 (malignant melanoma of other parts of face)	
	C43.4 (malignant melanoma of scalp and neck)	- 172.4 (malignant melanoma of skin of scalp and neck)
	C43.5 (malignant melanoma of trunk)	- 172.5 (malignant melanoma of skin of trunk, except scrotum)
	- C43.51 (malignant melanoma of anal skin)	
	- C43.52 (malignant melanoma of skin of breasts)	
	- C43.59 (malignant melanoma of other part of trunk)	

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C43.6 (malignant melanoma of <i>upper</i> limb including shoulder)	172.6 (malignant melanoma of skin of upper limb, including shoulder)
C43.60 (malignant melanoma of <i>unspecified</i> upper limb, including shoulder)	
- C43.61 (malignant melanoma <i>right</i> upper limb, including shoulder)	
- C43.62 (malignant melanoma of <i>left</i> upper limb, including shoulder)	
C43.7 (malignant melanoma of lower limb including shoulder)	172.7 (malignant melanoma of skin of lower limb, including hip)
C43.70 (malignant melanoma of <i>unspecified</i> lower limb, including hip)	
C43.71 (malignant melanoma of <i>right</i> lower limb, including hip)	
C43.72 (malignant melanoma of <i>left</i> lower limb, including hip)	
C43.8 (malignant melanoma of overlapping sites of skin)	172.8 (malignant melanoma of other specified sites of skin)
C43.9 (malignant melanoma of skin, unspecified)	172.9 (melanoma of the skin, site unspecified)

Procedures	ICD-10-PCS Codes	ICD-9-PCS Codes
Related diagnostic procedures	--	86.1 ( <i>diagnostic procedures on skin and subcutaneous tissue</i> )
	PCS 0H90XZX through 0JBR3ZX ( <i>see ICD10 code manual; includes 0H9- (drainage) and 0HB- (excision) by body part, and 0J9- (drainage) 0JB- (excision) by approach</i> )	- 86.11 (closed biopsy of skin and subcutaneous tissue)
	PCS 0HJPXZZ through 0JJW3ZZ ( <i>see ICD10 code manual; includes 0HJ- and 0JJ- (inspection) by body part</i> )	- 86.19 (other diagnostic procedures on skin and subcutaneous tissue)
	PCS 0WB00ZZ through 0YBN4ZZ ( <i>see ICD10 code manual; includes 0WB- , 0XB-, and 0YB- (excision by body part AND approach.)</i> )	86.4 (radical excision of skin lesion)
	PCS 07B00ZZ through 07BG4ZZ ( <i>see ICD10 code manual; includes 07B[0,3,4,7,B,F,G]- (excision of lymphatic and hemic systems by body part and approach)</i> )	40.3 (regional lymph node excision)

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	PCS 07T10ZZ through 07T24ZZ <i>(see ICD10 code manual; includes 07T-          (resection of neck lymphatic by body part,          and approach)</i>	40.4 (radical excision of cervical lymph nodes) - 40.40 (radical neck dissection, not otherwise specified) - 40.41 (radical neck dissection, unilateral) - 40.42 (radical neck dissection, bilateral)
	PCS 07T00ZZ through 07TJ4ZZ <i>(See ICD10 code manual; includes 07T-          (resection of lymphatic by body part AND          approach)</i>	40.5 (radical excision of other lymph nodes) - 40.50 (radical excision of lymph nodes, not otherwise specified) - 40.51 (radical excision of axillary lymph nodes) - 40.52 (radical excision of periaortic nodes) - 40.53 (radical excision of iliac lymph nodes) - 40.54 (radical groin dissection) - 40.59 (radical excision of other lymph nodes)

**Procedures****CPT Codes**

Related diagnostic procedures	<p>11100 (biopsy of skin, subcutaneous tissue and/or mucous membrane, (including simple closure), unless otherwise listed; single lesion.)</p> <p>11101 (biopsy of skin, subcutaneous tissue and/or mucous membrane, (including simple closure), unless otherwise listed; separate/additional lesions.)</p> <p>11600-11604 (excision, malignant lesion including margins, trunk, arms, or legs; excised <math>\geq 0.5</math> cm; 0.6-1.0 cm; 1.1-2.0 cm; 2.1-3.0 cm; 3.1-4.0 cm.)</p> <p>11606 (excision, malignant lesion including margins, trunk, arms, or legs; excised diameter &gt; 4.0 cm.)</p> <p>11620-11624 (excision, malignant lesion including margins, scalp, neck, hands, feet, genitalia; excised <math>\geq 0.5</math> cm; 0.6-1.0 cm; 1.1-2.0 cm; 2.1-3.0 cm; 3.1-4.0 cm.)</p> <p>11626 (excision, malignant lesion including margins, scalp, neck, hands, feet, genitalia; excised diameter &gt;4.0 cm.)</p> <p>11640-11644 (excision, malignant lesion including margins, face, ears, eyelids, nose, lips; excised <math>\geq 0.5</math> cm; 0.6-1.0 cm; 1.1-2.0 cm; 2.1-3.0 cm; 3.1-4.0 cm)</p> <p>11646 (excision, malignant lesion including margins, face, ears, eyelids, nose, lips; excised diameter &gt; 4.0 cm.)</p> <p>11300-11303 (shaving of epidermal or dermal lesion, single lesion, trunk, arms or legs; lesion diameter <math>\geq 0.5</math> cm; 0.6-1.0 cm; 1.1-2.0 cm; &gt;2.0 cm)</p> <p>11305-11308 (shaving of epidermal or dermal lesion, single lesion, scalp, neck, hands, feet, genitalia; lesion diameter <math>\geq 0.5</math> cm; 0.6-1.0 cm; 1.1-2.0 cm; &gt;2.0 cm)</p> <p>11310-11313 (shaving of epidermal or dermal lesion, single lesion, face, ears, eyelids, nose, lips lesion diameter <math>\geq 0.5</math> cm; 0.6-1.0 cm; 1.1-2.0 cm; &gt;2.0 cm)</p> <p style="text-align: right;"><i>(continued on next page)</i></p>
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	<p>17311-17315 (Mohs micrographic technique, including removal of all gross tumor, surgical excision of tissue specimens, mapping, color coding of specimens, microscopic examination of specimens by the surgeon, and histopathologic preparation including routine stains.)</p> <p>38500 (biopsy or excision of lymph node(s); open, superficial)</p> <p>38505 (biopsy or excision of lymph node(s); by needle, superficial (e.g., cervical, inguinal, axillary))</p> <p>38510 (biopsy or excision of lymph node(s); open, deep cervical node(s))</p> <p>38520 (biopsy or excision of lymph node(s); open, deep cervical node(s) with excision scalene fat pad)</p> <p>38525 (biopsy or excision of lymph node(s); open, deep axillary node(s))</p> <p>38530 (biopsy or excision of lymph node(s); open, internal mammary node(s))</p> <p>38542 (dissection, deep jugular node(s))</p> <p>38792 (injection procedure; radioactive tracer for identification of sentinel node)</p> <p>41100, 41105 (biopsy of tongue; anterior 2/3; posterior 1/3)</p> <p>41108 (biopsy of floor of mouth)</p> <p>67810 (incisional biopsy of eyelid skin including lid margin)</p> <p>68100 (biopsy of conjunctiva)</p> <p>69100 (biopsy external ear)</p> <p>69105 (biopsy external auditory canal)</p> <p>78195 (lymphatics and lymph nodes imaging)</p> <p>92225; 92226 (ophthalmoscopy, extended, with retinal drawing (e.g., for retinal detachment, melanoma), with interpretation and report; initial; subsequent.)</p> <p>96904 (whole body integumentary photography, for monitoring high risk patients with dysplastic nevus syndrome or a history of dysplastic nevi, or patients with a personal or familial history of melanoma.)</p>
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### Development and Revisions

- In May of 2016 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 malignant melanoma.<sup>1</sup> 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

- Based on exploratory analysis, case distribution curves, and the intent to increase the specificity of the case definition, AFHSC MSMR staff determined that *five or more medical encounters* that included the specific ICD9 and ICD10 codes for “malignant melanoma” and/or procedure codes that indicated relevant diagnostic procedures were conducted prior to the diagnosis of malignant melanoma, was optimal. Currently this case finding criteria includes no date restriction for the five medical encounters. AFHSB is reviewing data to determine if imposition of a timeframe would change case ascertainment.



- Current case finding criteria for malignant melanoma are designed for use with administrative healthcare data contained in the Defense Medical Surveillance System. The data generated is primarily ICD9 and ICD10 code-based data used for population health surveillance purposes. For research purposes investigators may wish to consider additional data sources (e.g., Health Level-7 (HL7) laboratory data, Armed Forces Health Longitudinal Technology (AHLTA) data, DoD Automated Tumor Registry (ACTUR)) to improve case identification and validation. AFHSB is exploring the use of HL7 data for conditions like malignant melanoma and sexually transmitted diseases where case identification using DMSS data only may be limited. Currently AFHSB is unable to ensure uniform access to, and accuracy of, HL7 data for cancer surveillance.

#### *Code Set Determination and Rationale*

- In May of 2016 ICD9 PSC code 91.6 (microscopic examination of specimen from skin and other integument) was removed from the code set. Review of the data indicate no cases have been identified using this procedure code and, in general, the procedure code, even out to the 4th digit, is very infrequently used.
- In April of 2010, the ICD9 code set was revised based on review and recommendations by the AFHSC Special Studies staff and the Surveillance Methods and Standards (SMS) working group. Updates included the following:
  - CPT codes 17304 and 17310 are included in the AFHSC surveillance case definition for analysis that requires data from 2007 or prior. These codes are no longer included in the American Medical Association (AMA) index of CPT codes.<sup>2</sup>
  - CPT code 39542 was included in the MSMR Vol 15(9) and the MSMR Vol 17(6) articles as the result of a typographical error during analysis. CPT code 38542 is the correct code and will be included in all future analyses.
  - CPT code 11703 was *removed* from the surveillance case definition as it does not exist. The code was incorrectly listed in the MSMR Vol 15(9) and the MSMR Vol 17(6) articles.

#### **Reports**

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None

#### **Review**

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May 2016	Case definition reviewed and updated by the AFHSC Surveillance Methods and Standards (SMS) working group
Oct 2010	Case definition reviewed and adopted by AFHSC Surveillance Methods and Standards working group.

#### **Comments**

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None

<sup>2</sup> Current Procedural Terminology (CPT) 2010, Professional Edition, American Medical Association.

