Reportable Skin Cancers

2020-2021 FCDS Educational Webcast Series

November 19, 2020

Steven Peace, CTR

Which Skin Cancers Are Reportable Neoplasms and Why
Anatomy and Physiology of the Integumentary System
WHO Classification of Neoplasms of the Skin
Signs & Symptoms, Prognostic Factors and Tumor Markers
Staging Skin Cancers

CDC & Florida DOH Attribution

"Funding for this conference was made possible (in part) by the Centers for Disease Control and Prevention. The views expressed in written conference materials or publications and by speakers and moderators do not necessarily reflect the official policies of the Department of Health and Human Services, nor does the mention of trade names, commercial practices, or organizations imply endorsement by the US Government."

CDC Centers for Disease Control and Prevention

Florida HEALTH

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FLccSC LMS – CEU Quiz –FCDS IDEA

- Attendees must take and pass a 3-5 question CEU Quiz to get CEUs
- CEU Awards are Restricted to Attendees with a FLccSC LMS Account
- The CEU Quiz will be posted to FLccSC 1-2 hours after the webcast ends

- We had glitches following the last webcast on Sarcoma that have been fixed

- Only registered FLccSC Users will be given access to the CEU Quiz
- Florida attendees must have a Florida FLccSC Account to take the Quiz
- South Carolina attendees must have a South Carolina FLccSC Account
- New FLccSC States will follow similar instructions for the CEU Quiz

- Attendees can attend any of the live webcasts without receiving CEUs
- Recorded Sessions are also available for non-FLccSC Users – No CEUs

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Presentation Outline

- Anatomy and Physiology of the Integumentary System
- Skin or Not Skin - Genital and Non-Genital "Skin" Sites

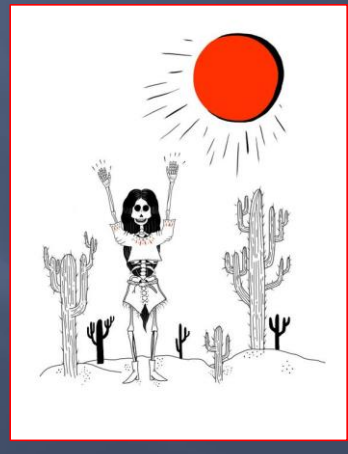
- Skin Cancer Facts and Figures
- Risk Factors – Signs and Symptoms
- Types of Skin Cancers – Need Site and Histology to Decide

- Skin of Eyelid and Skin of Lip

- Overview of Melanoma of Skin
- Staging Criteria for Melanoma of Skin

- Overview of Merkel Cell Carcinoma of Skin
- Staging Criteria for Merkel Cell Carcinoma of Skin

- Overview of Other Reportable Skin Neoplasms
- Staging Criteria for Other Reportable Skin Neoplasms



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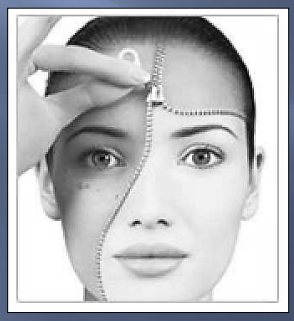
THE INTEGUMENTARY SYSTEM

UNDERSTANDING THE SKIN YOU'RE IN



Source: http://www.healthandbeautyace.com

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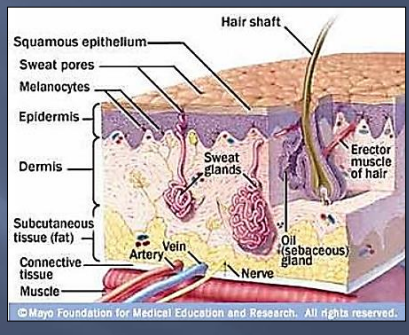
Physiology and Function

- Defensive Barrier
  - protection from sun
  - protection from injury
  - protection from pathogens
  - protection from environment
- Thermoregulation
  - controls blood flow
  - regulates evaporation
  - controls release of sweat
- Vitamin D Production
- Absorption and Secretion
- Maintain Body Fluids Balance
- Excrete Waste Products in Sweat
- Synthesis of Epidermal Lipids (fats and oils)
- Sensory Perception and Sensation
  - Touch/Feel/Hot/Cold/Pressure/Vibration/Wind



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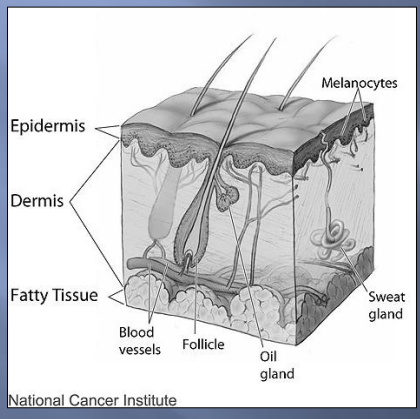
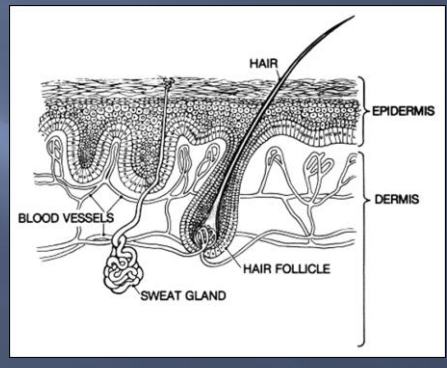
Anatomy





Source: http://visualsonline.cancer.gov

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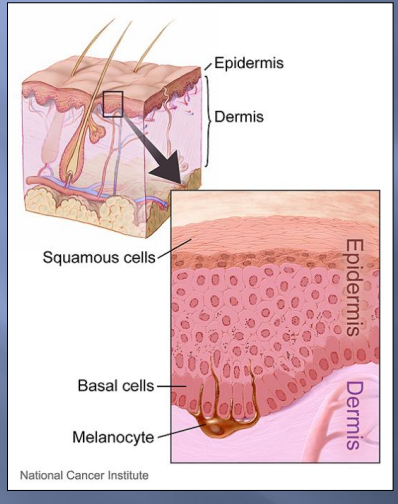
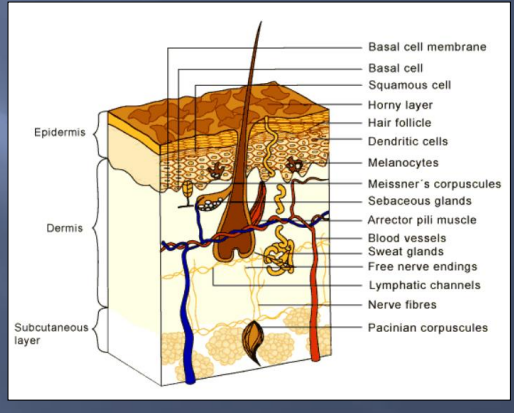
Anatomy





Source: http://visualsonline.cancer.gov and http://skincancer.dermis.net

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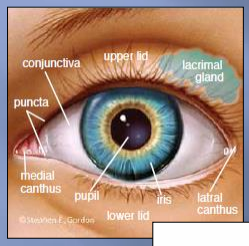
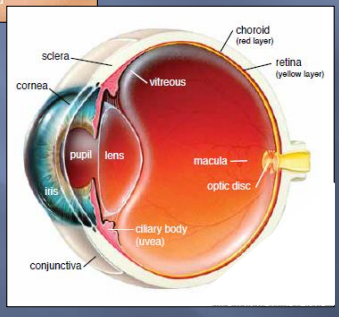
Skin or Not Skin?





- Eye - Skin or Not Skin?
  - Eyelid
  - Cornea
  - Choroid
  - Canthus
  - Tear Duct
  - Conjunctiva
  - Ciliary Body
- Neoplasms of Eye Sites
  - Malignant Melanoma
  - Merkel Cell Carcinoma
  - Squamous Cell CA
  - Adenocarcinoma
  - Basal Cell CA
  - Lymphoma
  - Other

Source: http://bascompalmereyeinstitute/images2014_1

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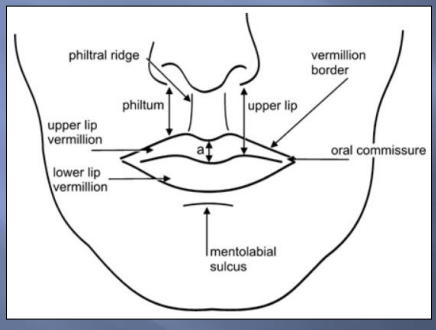
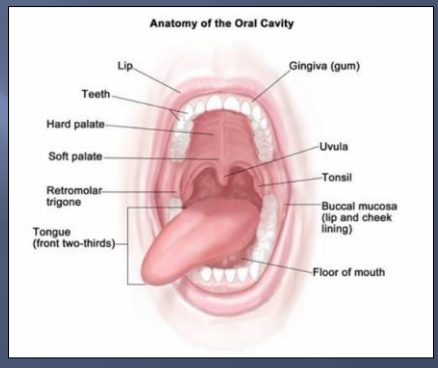
Skin or Not Skin?





Source: http://elementsofmorphology.nih.gov/images

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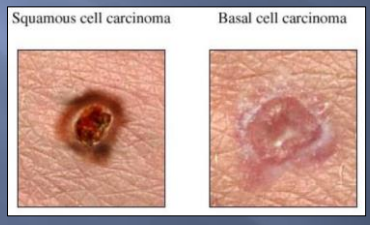
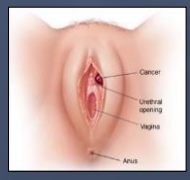
Genital Skin Sites: Skin or Not Skin?

- Genital Skin Sites
  - C60.0 – Prepuce
  - C60.0 – Foreskin
  - C60.9 – Penis, NOS
  - C63.2 - Scrotum



- Genital Skin Sites
  - C51.0 – Labia Majora
  - C51.1 – Labia Minora
  - C51.2 – Clitoris
  - C51.8 – Vulva
  - C51.9 – Fourchette
  - C51.9 – Vulva, NOS
  - C52.9 – Vagina, NOS



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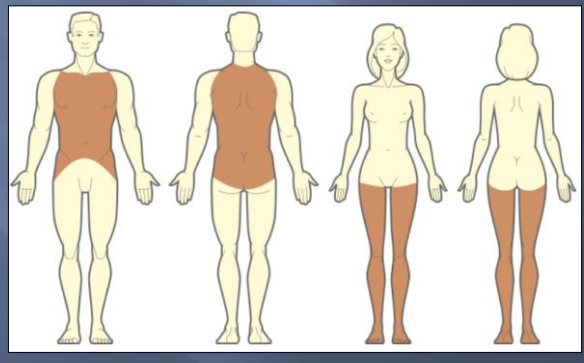
Skin or Not Skin?

- Fingernail - subungual
- Palms of Hands - palmar
- Toenail – subungual
- Bottom of Feet - plantar

ICD-O Skin Sites
C44.0 – Lip
C44.1 – Eyelid
C44.2 – External Ear
C44.3 – Face
C44.4 – Scalp/Neck
C44.5 – Trunk
C44.6 – Upper Limb
C44.7 – Lower Limb
C44.8 – Overlapping
C44.9 – Skin, NOS

Laterality
0 – Not Paired
1 – Right
2 – Left
5 - Midline

Known ICD Coding Limitations for Various Skin Sites



Not Covered
- Ventral
- Dorsal
- Upper
- Lower
- Inner
- Outer
- Forearm
- Calf
- Thigh
- Plantar
- Palmar
- Etc…

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What about Specific Histologies?

e) **Basal and squamous skin cancers in genital sites (histology codes 8000-8110) are reportable.**
"Genital Sites" include the following anatomic locations:

C51.0 - C51.1 – Labia	**C51.2 - Clitoris**	**C51.8 - C51.9 - Vulva**
C52.9 - Vagina	**C60.0 - Prepuce**	**C60.9 - Penis**
C63.2 - Scrotum		

Example One: Adenosquamous carcinoma of the skin is reportable. The histology code is 8560/3 and these are locally aggressive neoplasms and are quite rare.

Example Two: Sweat gland tumors with histology code 8400/3 and sweat duct carcinoma (8407/3) are reportable adenocarcinoma of the sweat glands of the skin (C44.*).

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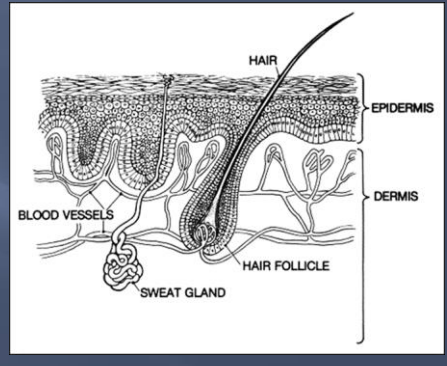
What about Sweat Gland Neoplasms

- Sweat glands, also known as sudoriferous or sudoriparous glands, are small tubular structures of the skin that produce sweat.
- 2 Classes – Eccrine and Apocrine Sweat Glands
- Sweat-gland carcinoma is a rare cutaneous appendage malignant tumor.
- Primary sweat-gland cancer can arise in the eyelid and orbit.
- Tumors are often high grade and frequently locally recurrent after surgery.
- Types: mucinous sweat-gland adenocarcinoma, mucinous eccrine carcinoma, clear cell eccrine gland carcinoma, malignant acrospiroma or eccrine porocarcinoma



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2021 MELANOMA RULES

Cutaneous Melanoma Equivalent Terms and Definitions
C440-C449 with Histology 8720 – 8780 (Excludes melanoma of any other site)
Rules Apply to Cases Diagnosed 1/1/2021 forward

Introduction

Note 1: Tables and rules refer to ICD-O rather than ICD-O-3. The version is not specified to allow for updates. Use the currently approved version of ICD-O.

Note 2: 2007 MPH Rules and 2021 Solid Tumor Rules are used based on date of diagnosis

- Tumors diagnosed 01/01/2007 through 12/31/2020: Use 2007 MPH Rules and 2007 General Instructions
- Tumors diagnosed 01/01/2021 and later: Use 2021 Solid Tumor Rules and Solid Tumor General Instructions
- The original tumor diagnosed ***before*** 01/01/2021 and a subsequent tumor diagnosed 01/01/2021 or later in the same primary site: Use the 2021 Solid Tumor Rules and Solid Tumor General Instructions

Note 3: Melanoma can also start in the mucous membranes of the mouth, anus and vagina, in the eye or other places in the body where melanocytes are found. This scheme is used ***only*** for melanomas that ***occur on the skin***.

Note 4: The WHO Classification of Skin Tumors 4th Ed does not include ICD-O codes for tumors with mixed melanoma subtypes/variants

Note 5: Cutaneous melanoma starts in the melanocytes of the skin. Melanocytes lie in the epidermis, the outermost layer of the skin. Melanocytes often cluster together and form moles (nevi). Most moles are benign, but some may become malignant melanomas. Melanomas are divided into 5 main types, depending on their location, shape, and whether they grow outward or downward into the dermis:

- Acral melanoma: occurs on the palms of the hand, soles of the feet, or nail beds
- Desmoplastic melanoma: is a rare malignant melanoma marked by non-pigmented lesions on sun exposed areas of the body
- Lentigo maligna: usually occur on the faces of elderly people
- Superficial spreading or flat melanoma: grows outwards at first to form an irregular pattern on the skin with an uneven color
- Nodular melanoma: are lumpy and often blue-black in color and may grow faster and spread downwards

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2021 MELANOMA RULES

Changes from 2007 MPH Rules

These changes are effective with cases diagnosed 1/1/2021 and later. WHO 4th Ed Classification of Skin Tumors was published in 2018.

1. 2007 Rules instruct "Code the histology from the most representative specimen." For all sites except breast and CNS, the 2021 Rules instruct "Code the most specific histology from biopsy or resections". When there is a discrepancy between the biopsy and resection (two distinctly different histologies), code the histology from the most representative specimen (the greater amount of tumor)." **This instruction applies to the 2021 cutaneous melanoma solid tumor rules.**
2. Early/evolving melanoma in situ (8720/2) and early/evolving melanoma invasive (8720/3) are reportable for cases diagnosed 1/1/2021 and later. Please refer to SEER Program Coding and Staging Manual 2021 for additional information on reportable neoplasms.
3. New histology **terms** are included (identified by asterisks (*) in the histology table in the Terms and Definitions). No new cutaneous melanoma ICD-O histology **codes** have been proposed by WHO.
4. Some histologies are rare and may not be listed in the tables; refer to ICD-O and all updates. If the histology is not found in the tables or ICD-O, submit a question to Ask a SEER Registrar.
5. WHO 4th Ed Skin Tumors now classifies melanocytic tumors into two groups:
   A. Melanomas arising in sun-exposed skin
   B. Melanomas arising at sun-shielded sites or without known etiological association with UV radiation exposure

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2021 MELANOMA RULES

Table 2: Specific Histologies, NOS, and Subtypes/Variants

NOS Histology Terms and Codes	Synonyms	Subtypes/Variants
Melanoma, NOS 8720 *Note*: Sarcomatoid melanoma is a rare subtype of melanoma characterized by almost complete loss of melanocytic differentiation both morphologically and phenotypically, with the bulk of the tumor being replaced by a spindle cell, sarcomatoid component. Use code 8772/3, spindle cell melanoma.	Melanoma in situ 8720/2 Early/Evolving melanoma in situ** 8720/2 Nevoid melanoma 8720/3 Early/Evolving invasive melanoma** 8720/3	Acral melanoma*/acral lentiginous melanoma, malignant 8744/3 Amelanotic melanoma 8730/3 Balloon cell melanoma 8722/3 Desmoplastic melanoma/desmoplastic melanoma, amelanotic/neurotropic melanoma, malignant 8745/3* Epithelioid cell melanoma 8771/3 Lentigo maligna/Hutchinson melanotic freckle 8742/2 Lentigo maligna melanoma/Melanoma in Hutchinson melanotic freckle 8742/3 Low cumulative sun damage melanoma*/superficial spreading melanoma 8743/3 Melanoma arising in a blue nevus 8780/3* Malignant melanoma arising in giant congenital nevus*/malignant melanoma in giant pigmented nevus 8761/3 Malignant melanoma in a precancerous melanosis 8741/3 Malignant melanoma, regressing 8723/3 Malignant Spitz tumor*/mixed epithelioid and spindle cell melanoma 8770/3 Nodular melanoma 8721/3 Spindle cell melanoma 8772/3 Spindle cell melanoma, type A 8773/3 Spindle cell melanoma, type B 8774/3

- Reportable Skin Cancers
- Primary Site & Laterality
- Synonyms and Subtypes
- Multiple Primary Rules
- Histology Coding Rules

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2021 HEME/LYMPH RULES & DB

2021

Coding Manual: Hematopoietic Coding Manual (PDF)

Grade

Not Applicable

Module Rule

None

Alternate Names

C-ALCL
Primary cutaneous CD30+ large T-cell lymphoma [OBS]

Definition

Primary cutaneous anaplastic large cell lymphoma (C-ALCL) is composed of large cells with an anaplastic, pleomorphic, or immunoblastic cytomorphology, the majority of which express the CD30 antigen.

Patients with C-ALCL should not have the clinical evidence of *mycosis fungoides* with large cell transformation, which may be CD30-postive or CD30 negative. The disease must also be distinguished from systemic anaplastic large cell lymphoma with cutaneous involvement, which is a separate disease with different cytogenetics, clinical features, and outcomes.

Abstractor Notes

Most patients present with solitary or localized nodules or tumors, and sometimes papules, and often show ulceration.

Extracutaneous dissemination occurs in <10% of the patients and mainly involves the lymph nodes.

Definitive Diagnostic Methods

Genetic testing

http://seer.cancer.gov/seertools/hemelymph/

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2021 STM Rules – Other Skin

- Merkel Cell Carcinoma – No Specific Rules
  - Follow the General Other Site Rules
  - Difference in Primary Site/Laterality
  - Difference in Date of Dx > 1 year
  - No Insitu/Invasive Rules – No In Situ Merkel Cell Carcinoma
  - Almost Always a Single Primary
- Kaposi Sarcoma – 1 Rule – KS is Always a Single Primary
  - Skin Only
  - Mucosa Only
  - Solid Organs
  - Any Mix of the Above
  - ALL ONE PRIMARY

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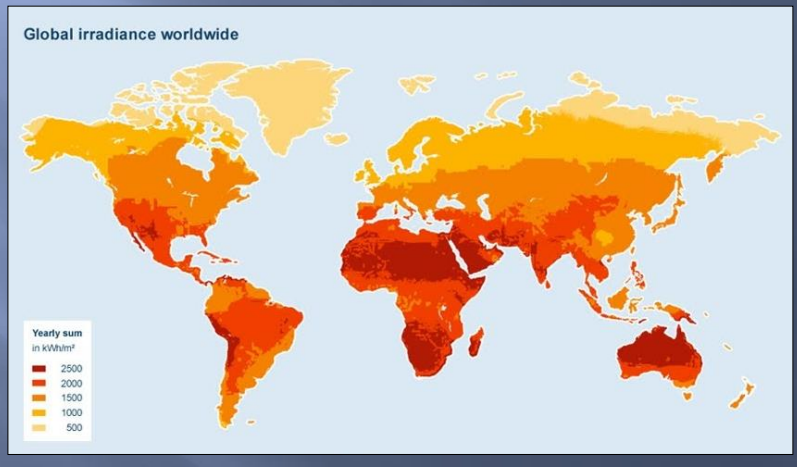
Skin Cancer – Facts and Figures



http://www.gpiiisolar.com

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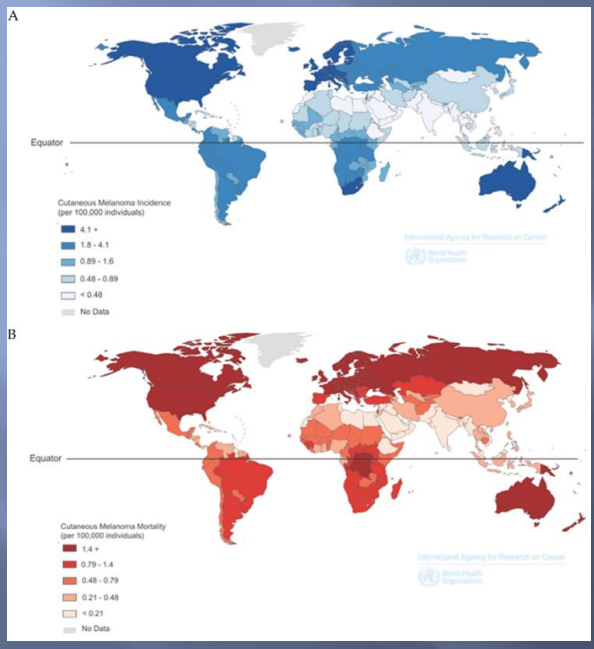
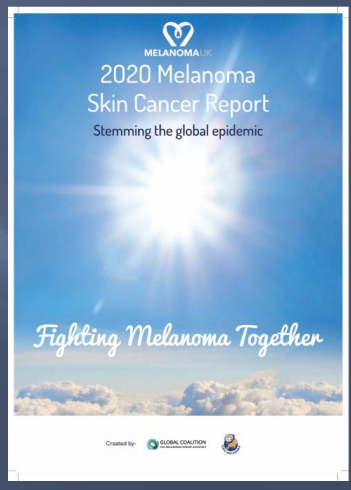
Global Melanoma Facts and Figures





Source: WHO 2020 Melanoma Skin Cancer Report

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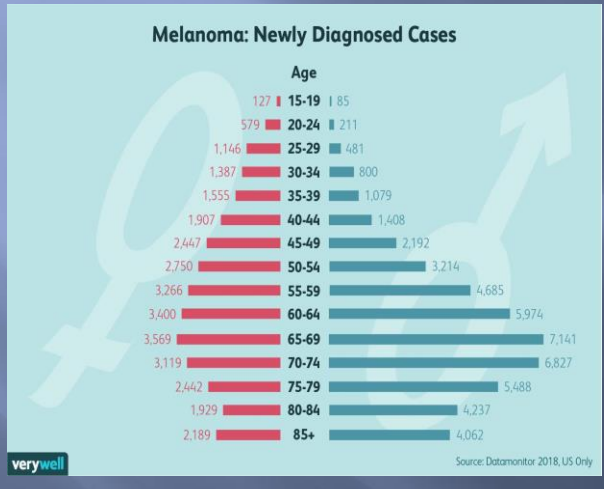
More Facts and Figures



Source: VeryWellDataMonitor2018 and Melanoma Research Alliance

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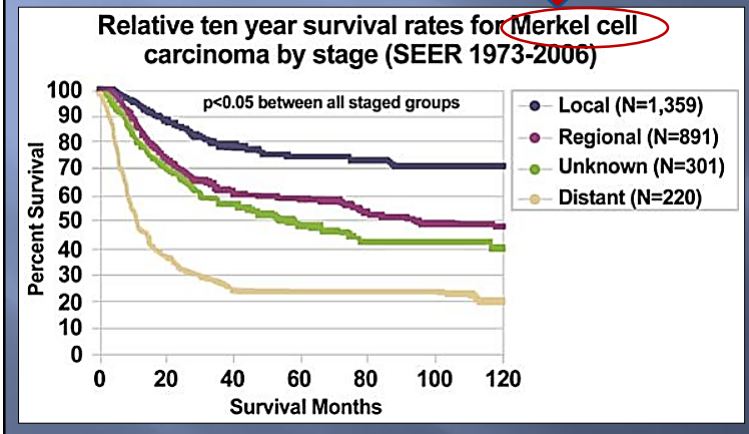
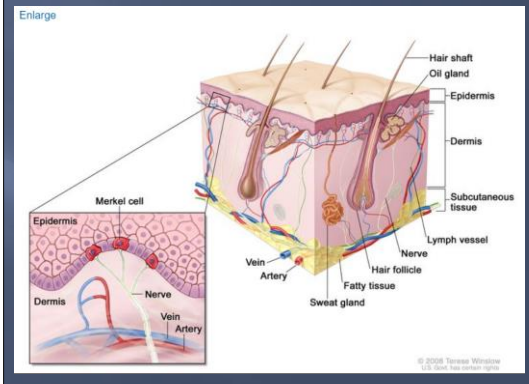
Skin Cancer – Facts and Figures





http://www.cancer.gov/images

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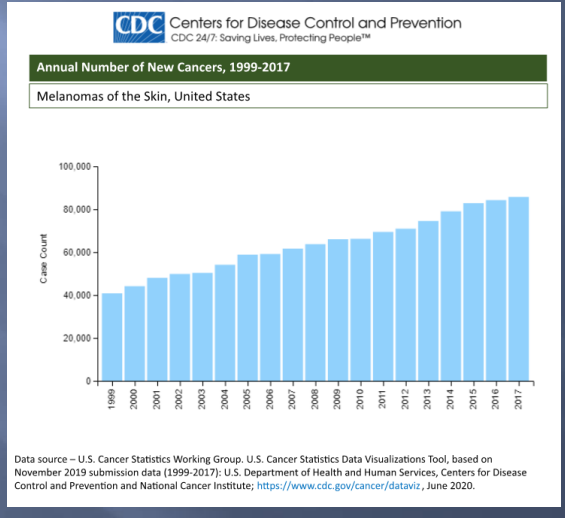
Skin Cancer – Facts and Figures

CANCER CONTROL P.L.A.N.E.T.
Plan, Link, Act, Network with Evidence-based Tools



http://statecancerprofiles.cancer.gov

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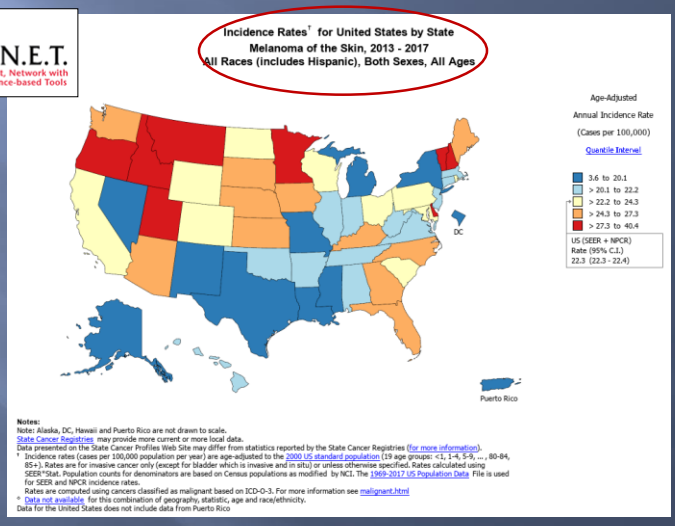
Skin Cancer – Facts and Figures



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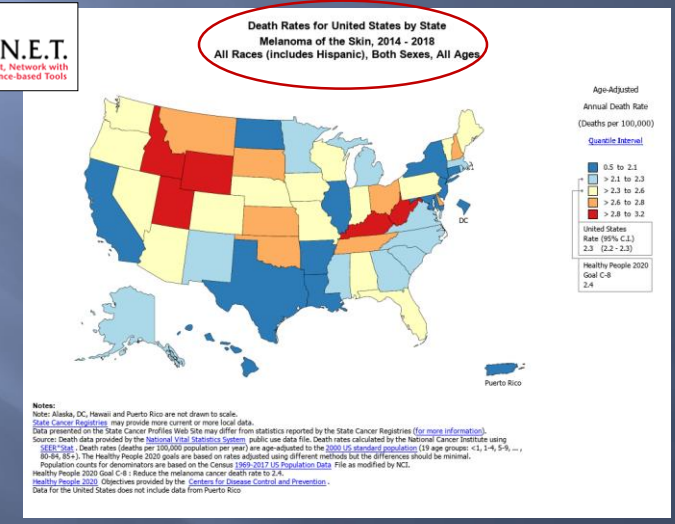
Skin Cancer – Facts and Figures



http://statecancerprofiles.cancer.gov

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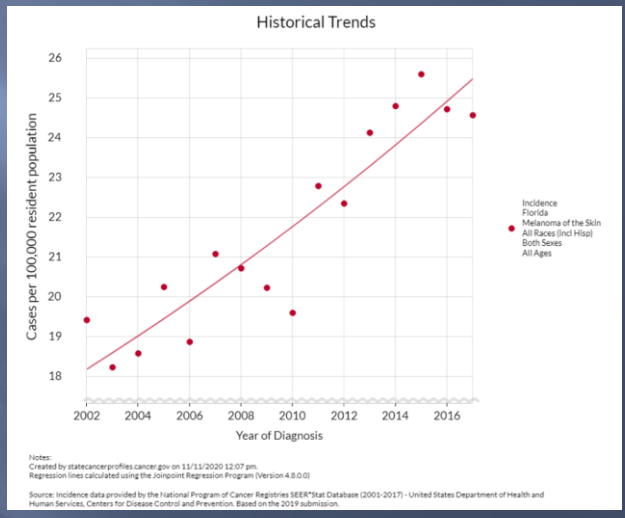
Skin Cancer – Facts and Figures



http://statecancerprofiles.cancer.gov

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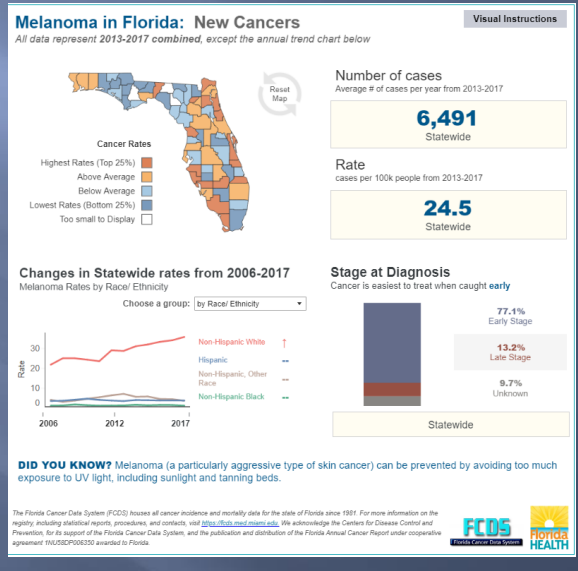
Skin Cancer – Facts and Figures



http://fcds.med.miami.edu/inc/statistics Interactive Map/Rates Utility

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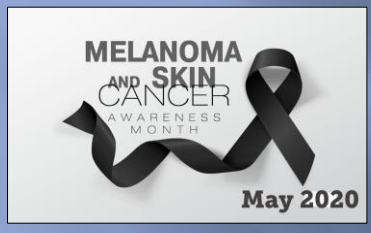
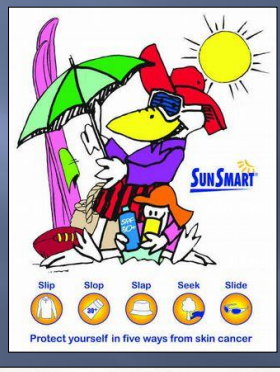
Skin Cancer Awareness





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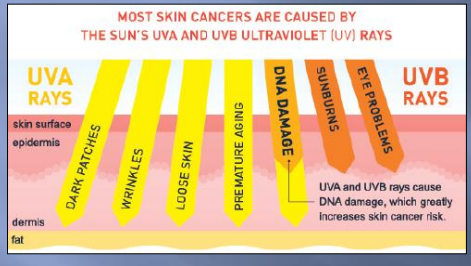
Causes and Risk Factors



- ✓ Family History of Melanoma
- ✓ Personal History of Melanoma
- ✓ History of Excessive Sun Exposure
- ✓ Live in Hot Climate or High Altitude

- ✓ History of Excessive Sun Exposure
- ✓ Suntan Booth or Suntan Bed Use
- ✓ Immune System Disorder
- ✓ Outdoor Workers
- ✓ Atypical Moles
- ✓ Skin Type

http://cancer.org/acspc-039130

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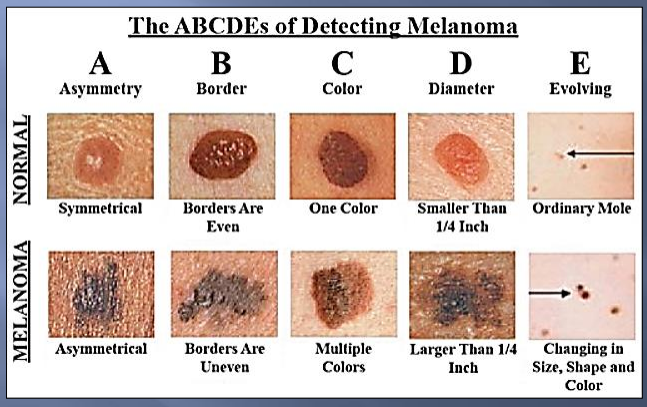
Signs and Symptoms



add

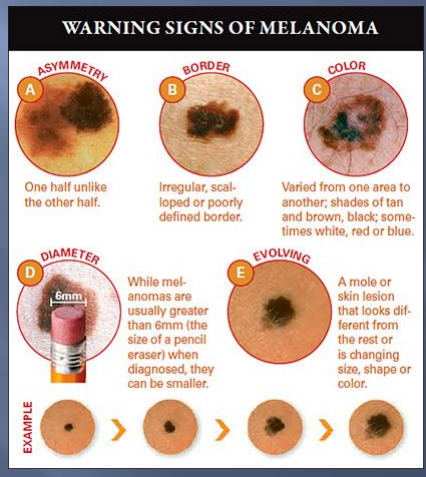
F
Feel/Friction

Feels Rough
Is Tender
Inflamed
Bleeding
Crusting
Has Sensory Changes

Glasgow 7

Source: National Cancer Institute

Early/Evolving Melanoma in-situ



EVOLVING

https://www.washingtondcderm.com/melanoma

Prevention

Source: http://sterlingmedicaladvice.com and sunsmart.com

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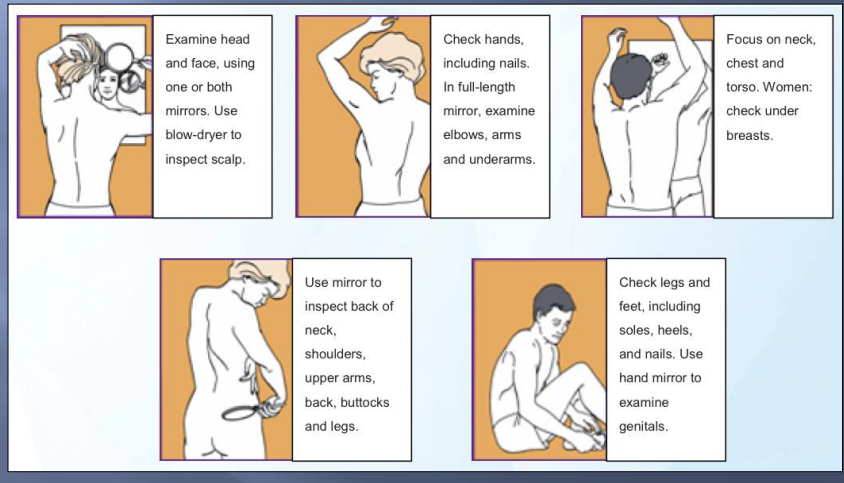
Screening



Source: http://www.melanoma.org

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Screening

Population	Asymptomatic adults
Recommendation	No recommendation. Grade: I (insufficient evidence)

Risk Assessment	Skin cancer occurs more commonly in men than in women and among persons with a fair complexion, persons who use indoor tanning beds, and persons with a history of sunburns or previous skin cancer. Specific risk factors for melanoma include having a dysplastic nevus (atypical mole), multiple (≥100) nevi, and a family history of melanoma. Risk of melanoma also increases with age.
Screening Tests	The clinical visual skin examination assesses skin lesions using the "ABCDE rule," which involves looking for the following characteristics: asymmetry, border irregularity, nonuniform color, diameter >6 mm, and evolving over time.
Treatment and Interventions	Treatment of screen-detected melanoma generally involves excision, with or without lymph node management, depending on the stage at diagnosis. There are a variety of treatments available for squamous and basal cell carcinoma, including surgical excision, Mohs micrographic surgery, radiation therapy, curettage and electrodessication, and cryosurgery.
Balance of Benefits and Harms	The USPSTF concludes that the current evidence is insufficient and that the balance of benefit and harms of visual skin examination by a clinician to screen for skin cancer in asymptomatic adults cannot be determined.
Other Relevant USPSTF Recommendations	The USPSTF recommends that children, adolescents, and young adults aged 10 to 24 years who have fair skin be counseled about minimizing their exposure to ultraviolet radiation to reduce their risk of developing skin cancer. This recommendation is available on the USPSTF website (http://www.uspreventiveservicestaskforce.org).

For a summary of the evidence systematically reviewed in making this recommendation, the full recommendation statement, and supporting documents, please go to http://www.uspreventiveservicestaskforce.org.

U.S. Preventive Services TASK FORCE

JAMA

Source: U.S. Preventive Services Task Force Recommendation - 2009

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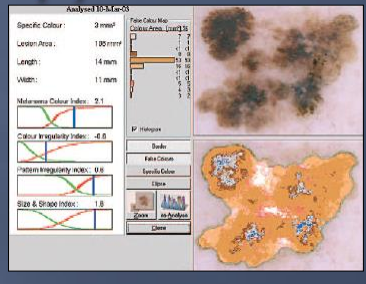
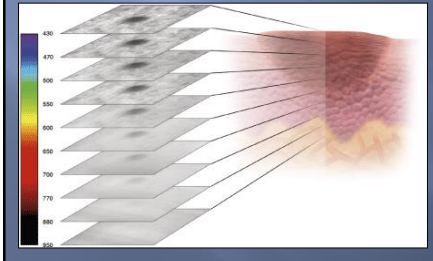
Digital Dermoscopy





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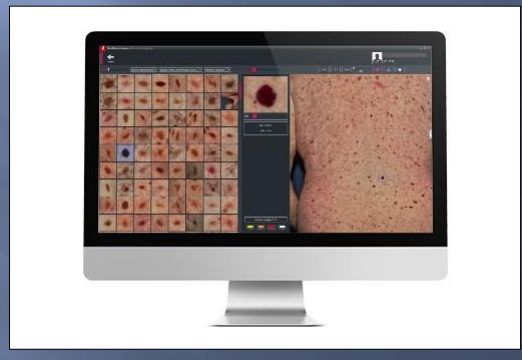
…there's an app for that…



Source: various on market scopes and applications

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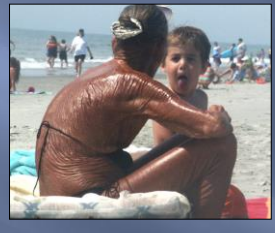
Neoplasms of Skin

- Benign
- Atypical
- Malignant
- Metastatic

- Congenital
- Acquired
  - UV Radiation
  - Viral Exposure(s)
  - Toxic Exposure(s)
  - Vitamin Deficiency
  - Mineral Deficiency



Source: http://stophavingaboringlife.com

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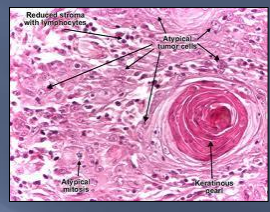
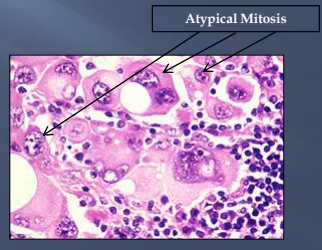
Neoplasms of Skin

- Keratinocytic Tumors
  - Verruca
  - Acanthoma
  - Actinic Keratosis
  - Basal Cell Carcinoma
  - Squamous Cell Carcinoma
- Melanocytic Tumors
  - Lentigo Maligna
  - Malignant Melanoma
  - Congenital Melanocytic Nevus
  - Bleu Nevi
  - Spitz Nevus
  - Simple Lentigo
  - Dysplastic nevus





Source: http://www.pathologyatlas and http://www.nih.gov/images

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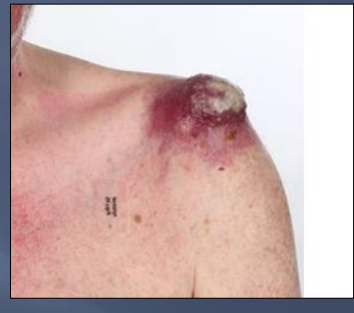
Neoplasms of Skin

- Neural Tumors
  - Neuroma
  - Merkel Cell Carcinoma
  - PNET/Extraskeletal Ewing Sarcoma
- Appendageal Tumors
  - Eccrine Tumors
  - Apocrine Tumors
  - Follicular Tumors
  - Sebaceous Tumors
- Soft Tissue Tumors
  - Fibroma
  - Leimyosarcoma
  - Dermatofibrosarcoma Protuberans – NOT REPORTABLE – Now is /1 behavior
  - Vascular Tumors (hemangioma, Kaposi sarcoma)



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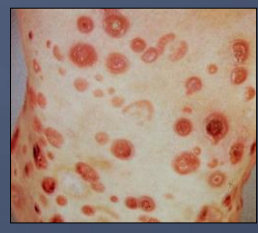
Neoplasms of Skin

- Hematolymphoid Tumors
  - Mastocytosis
  - Parapsoriasis
  - Sezary Syndrome
  - Mycosis Fungoides
  - Hodgkin Lymphoma
  - Cutaneous T-cell Lymphoma
  - Cutaneous B-cell Lymphoma
  - Diffuse Large B-cell Lymphoma
  - Langerhans Cell Histiocytosis
  - CD30+ T-cell Lymphoproliferative Disorder
  - Subcutaneous Panniculitis-like T-cell Lymphoma
  - Hydroa Vacciniforme-like Cutaneous T-cell Lymphoma
  - Cutaneous Aggressive Epidermotropic CD8+ Cytotoxic T-cell Lymphoma



Source: http://www.ncbi.nlm.nih.gov

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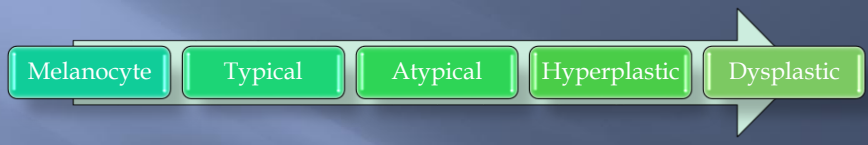
MELANOMA OF THE SKIN

How Melanoma Typically Grows



Size

Radial or Horizontal Growth Phase - The early pattern of growth of cutaneous malignant melanoma in which tumor cells spread laterally into the epidermis. During its horizontal phase of growth, a melanoma is normally flat.

Thickness

Vertical Growth Phase - The late pattern of growth of cutaneous malignant melanoma in which tumor cells spread from the epidermis into the dermis. As the vertical phase develops, the melanoma becomes thickened and raised.

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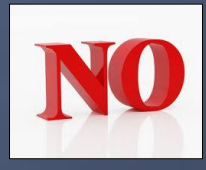
Precancerous Terminology

- Pigmented nevi
- Atypical melanosis
- Melanocytic dysplasia
- Benign juvenile melanoma
- Dysplastic melanocytic nevi
- Atypical melanocytic hyperplasia
- Atypical melanocytic proliferation
- Intraepithelial melanocytic neoplasia
- Intraepithelial melanocytic proliferation
- Circumscribed precancerous melanosis
- Intraepithelial atypical melanocytic hyperplasia



Unless Pathologist States "melanoma in-situ"

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Types of Melanoma

- **NEW – Early/Evolving Melanoma** – thin melanoma
- Lentigo maligna
- Melanoma in situ
- Nodular melanoma
- Amelanotic melanoma
- Lentigo maligna melanoma
- Superficial spreading melanoma
- Acral lentiginous melanoma
- Malignant melanoma, NOS
- Desmoplastic melanoma
- Spindle cell melanoma
- Epithelioid melanoma
- Melanoma in nevus

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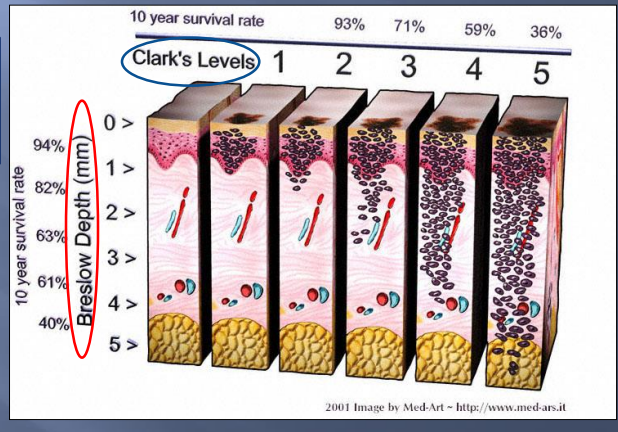
Prognostic Factors

Clark's Level (1-5)

TUMOR THICKNESS or Breslow Depth

Measure Vertical Growth (mm)



Source: http://www.med-ars.it/various/livelli4.jpg

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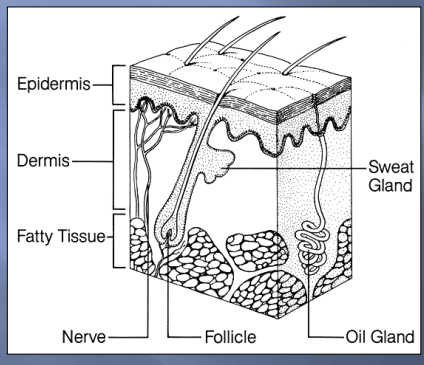
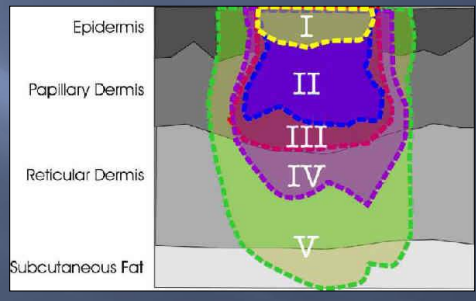
Clark's Level





Source: http://www.cksinfo.com/medicine/anatom

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Breslow Tumor Thickness

- Breslow Depth or Tumor Thickness measures in millimeters the distance between the upper layer of the epidermis and the deepest point of tumor penetration.
- We now only code the depth to a tenth of a millimeter instead of hundredth of mm.
- The thinner the melanoma, the better the chance of cure.

- 1 mm equals 0.04 inch
- Replaced AJCC Depth
- Replaced Clarks Level
  (except for thin tumors)

Breslow Depth	
Stage	**Depth**
Stage I	less or equal to 0.75mm
Stage II	0.75 mm - 1.5mm
Stage III	1.51 mm - 2.25mm
Stage IV	2.25 mm - 3.0mm
Stage V	greater than 3.0 mm

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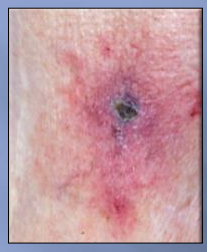
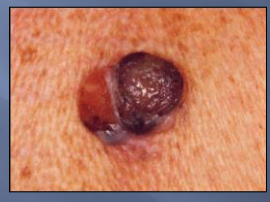
Ulceration and Mitotic Rate





Presence of primary tumor ulceration remains an adverse predictor of survival and is included along with mitotic rate as a primary criterion for defining melanomas.

Primary tumor mitotic rate or the # of mitoses/mm^2 is an important independent adverse predictor of survival.

Source: http://skincancer.org/publications

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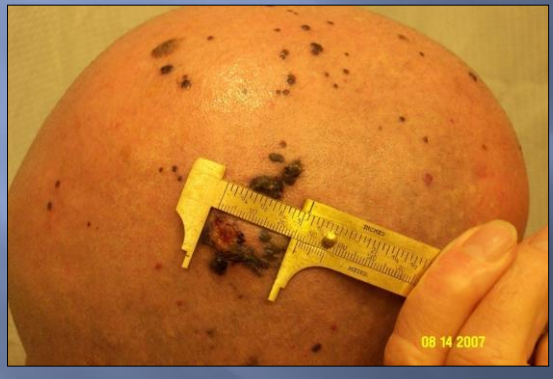
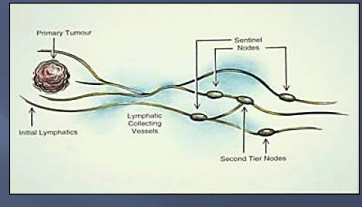
In-Transit and Satellite Lesions





Source: Steven Peace Archives

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Regional Nodes Positive/Examined

- Although satellite nodules/in-transit metastasis are coded under CS lymph nodes DO NOT INCLUDE the number of satellite nodules as regional LN positive in this field or in the number of nodes examined/positive.

- AJCC "there is no lower threshold of tumor burden defining the presence of regional node metastasis. Specifically, nodal tumor deposits <0.2 mm in diameter (previously used as the threshold for defining nodal metastasis) ARE INCLUDED in staging of nodal disease as a result of the consensus that smaller volumes of metastatic tumor are still clinically significant".

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2021 Skin Merkel Cell & Melanoma SSDIs

- Melanoma FCDS Required = White
- Melanoma CoC Req'd = Orange + White
  - SSDI – Breslow Tumor Thickness
  - SSDI – Ulceration
  - SSDI – Mitotic Rate Melanoma
  - SSDI – LDH Pretreatment Lab Value
  - SSDI – LDL Level
  - SSDI - LDH Upper Limits of Normal

Site-Specific Data Item (SSDI) Manual

Effective with Cases Diagnosed 1/1/2018 and Forward

Published (September 2020)

Version 2.0

- Merkel Cell FCDS Required – None
- Merkel Cell CoC Req'd = Orange
  - SSDI – Extranodal Extension Clin (non-Head and Neck)
  - SSDI – Extranodal Extension Path (non-Head and Neck)
  - SSDI – LN Isolated Tumor Cells (ITC)
  - SSDI – Profound Immune Suppression

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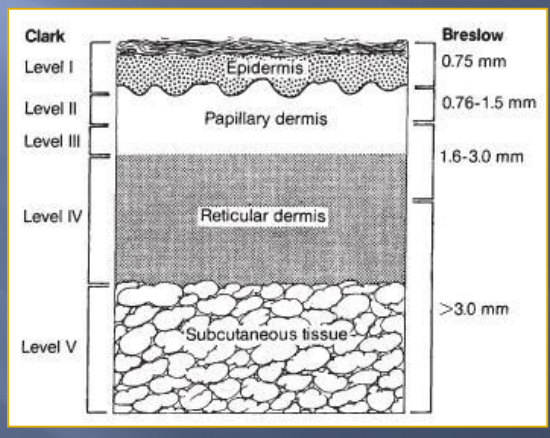
SSDI – Breslow Tumor Thickness

Clark's Level Staging takes precedence over Measured Tumor Thickness Only for Thin Melanoma or Melanoma < 1mm



ALL CASES of Melanoma should have a Measured Thickness

Many will also include Clark's Level

http://i5.photobucket.com/albums/y168/ziwo/melanoma.jpg

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SSDI – LDH Lab Value (Pre-Treatment)

Rationale

LDH (Lactate Dehydrogenase) Level is a prognostic factor required in AJCC 8th edition for Chapter 82 Plasma Cell Myeloma and Plasma Cell Disorders and Chapter 47 Melanoma Skin. For Plasma Cell Myeloma, LDH is part of the RISS Stage and is new for cases diagnosed 1/1/2018+. For Melanoma Skin, LDH is used to define the M subcategories and was previously collected as Melanoma Skin, SSF #4.

Coding Instructions and Codes

Note 1: Use the reference ranges from your lab to determine if LDH is normal.

Note 2: Record this data item based on a blood test performed at diagnosis (pre-treatment). In the absence of the lab test, a physician's statement of the exact value or interpretation can be used. Use the highest value available.

Note 3: If there is no mention of the LDH, code 9.

Note 4: The same laboratory test should be used to record information in LDH Upper Limits of Normal [NAACCR Data Item #3870] and LDH Lab Value [NAACCR Data Item #3932].

Code	Description
0	Normal LDH level Low, below normal
1	Above normal LDH level; High
7	Test ordered, results not in chart
9	Not documented in medical record LDH (Lactate Dehydrogenase) Level not assessed or unknown if assessed

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Summary Stage 2018

MELANOMA SKIN

8720-8790 (C000-C002, C006, C440-C449, C500, C510-C512, C518-C519, C600-C602, C608-C609, C632)

Note 1: The following sources were used in the development of this chapter

- SEER Extent of Disease 1988: Codes and Coding Instructions (3rd Edition, 1998) (https://seer.cancer.gov/archive/manuals/EOD10Dig.3rd.pdf)
- SEER Summary Staging Manual-2000: Codes and Coding Instructions (https://seer.cancer.gov/tools/ssm/)
- Collaborative Stage Data Collection System, version 02.05: https://cancerstaging.org/cstage/Pages/default.aspx
- Chapter 47 *Melanoma of the Skin*, in the AJCC Cancer Staging Manual, Eighth Edition (2017) published by Springer International Publishing. Used with permission of the American College of Surgeons, Chicago, Illinois.

Note 2: For melanoma of sites other than those above

- C003-C005, C008-C069, C090-C148, C300-C329: See Melanoma Head and Neck
- C690: See Melanoma Conjunctiva
- C693, C694: See Melanoma Uvea
- For all other sites, use the appropriate site-specific schema

Note 3: If there is a discrepancy between the Clark level and the pathological description of extent (invasion into the layers of the dermis), use the higher (more extensive) code.

Note 4: Code the greatest extent of invasion from any procedure performed on the lesion, whether it is described as a biopsy or an excision. For example, if a punch biopsy with involvement of Clark level IV is followed by a re-excision with residual tumor involving Clark level II, code 2 (Clark level IV).

Note 5: If a Breslow's depth is given in the pathology report and there is no other indication of involvement, the following guidelines may be used *(Note: If a physician documents a different Clark's Level then provided by these guidelines, go with the physician's Clark Level)*

- In situ: Level 1
- Localized
  - Level II (< 0.75 mm Breslow's Depth)
  - Level III (0.76 mm to 1.50 mm Breslow's Depth)
  - Level IV (> 1.50 mm Breslow's Depth)
- Regional
  - Level V: Through entire dermis

Note 6: Isolated tumor cells (ITCs) are defined as single tumor cells or small clusters not greater than 0.2 mm, usually detected by immunohistochemical (IHC) or molecular methods. ITCs do not usually show evidence of malignant activity (e.g., proliferation or stromal reaction).

- Lymph nodes with isolated tumor cells (ITCs) are counted as positive lymph nodes

Note 7: In-transit, satellite, and/or microsatellite metastasis are metastasis that have occurred via lymphatic or angiolymphatic spread. Satellite nodules are subcutaneous metastasis that occur within 2 cm of the primary tumor. Microsatellite metastasis are microscopic cutaneous metastasis found adjacent or deep to a primary melanoma tumor.

- In-transit, satellite, and/or microsatellite metastasis are counted as positive nodes

Note 8: Bilateral or contralateral nodes are classified as regional nodes for head, neck, and truncal tumors with bidirectional drainage to primary nodal basins, as shown on lymphoscintigraphy. Truncal tumors may also drain to both cephalad and caudal primary nodal basins as shown on lymphoscintigraphy.

- Clinical assessment of bilateral/contralateral or cephalad/caudal regional nodal involvement is required for tumors where lymphoscintigraphy is not performed

Note 9: Contiguous or secondary nodal basins are the next nodal drainage basins beyond the primary nodal basins and are coded as regional nodes.

Summary Stage 2018

SUMMARY STAGE

0 In situ, intraepithelial, noninvasive

- Basement membrane of the epidermis is intact
- In situ, intraepidermal, intraepithelial, noninvasive
  - Clark level I

1 Localized only (localized, NOS)

- Papillary dermis invaded
  - Clark level II
- Papillary-reticular dermal interface invaded
  - Clark level III
- Reticular dermis invaded
  - Clark level IV
- Skin/dermis, NOS

2 Regional by direct extension only

- Subcutaneous tissue (through entire dermis)
  - Clark level V

3 Regional lymph node(s) involved only

- All sites (Single, Multiple, Ipsilateral) (See Code 7 for contralateral or bilateral nodes (except for head and neck skin primaries))
  - Isolated tumor cells (ITCs) WITH or WITHOUT regional lymph node involvement
  - In-transit, satellite, and/or microsatellite metastasis WITH or WITHOUT regional lymph node involvement
  - Regional lymph node(s), NOS
    - Lymph node(s), NOS
- Head and Neck skin primaries only (C000-C002, C006, C440, C442-C444) (includes contralateral and bilateral nodes)
  - Levels I-VII
  - Axillary (neck only, C444)
  - Cervical, NOS
  - Deep cervical, NOS
  - Facial (buccinator, buccal, nasolabial)
  - Internal jugular, NOS
  - Parapharyngeal
  - Parotid (infraauricular, intraparotid, periparotid, preauricular)
  - Retroauricular (mastoid)
  - Retropharyngeal
  - Suboccipital
- Skin of trunk (C445)
  - Upper trunk
    - Axillary
    - Cervical
    - Internal mammary
    - Supraclavicular
  - Lower trunk
    - Superficial inguinal (femoral)
- Skin of upper limb and shoulder (C446)
  - Axillary
  - Cervical
  - Epitrochlear for hand/forearm
  - Internal mammary (parasternal)
  - Spinal accessory for shoulder
  - Supraclavicular (transverse cervical)
- Skin of lower limb and hip (C447)
  - Femoral (superficial inguinal)
  - Inguinal
  - Popliteal for heel and calf
- Vulva (C510-C512, C518-C519)
  - Deep inguinal, NOS
  - Femoral
  - Inguinal, NOS
  - Inguinofemoral (groin)
  - Node of Cloquet or Rosenmuller (highest deep inguinal)
  - Superficial inguinal (femoral)
- Penis (C600-C602, C608-C609)
  - Iliac, NOS
    - External
    - Internal (hypogastric, obturator)
  - Inguinal, NOS
    - Node of Cloquet or Rosenmuller (highest deep inguinal)
    - Superficial [femoral]
  - Pelvic, NOS
- Scrotum (C632)
  - Iliac, NOS
    - External
    - Internal (hypogastric), NOS
      - Obturator
  - Inguinal, NOS
    - Deep inguinal, NOS
      - Node of Cloquet or Rosenmuller (highest deep inguinal)
    - Superficial inguinal (femoral)

4 Regional by BOTH direct extension AND regional lymph node(s) involved

- Codes (2) + (3)

7 Distant site(s)/lymph node(s) involved

- Distant site(s) (including further contiguous extension)
  - Bone
  - Central nervous system (CNS)
  - Lung
  - Skeletal muscle (including direct extension)
  - Skin or subcutaneous tissue beyond regional lymph nodes
  - Underlying cartilage
  - Visceral metastasis, NOS
- Distant lymph node(s), NOS
  - Axillary (lower trunk)
  - Femoral (cephalad/caudal) (upper trunk)
  - Iliac (leg/hip)
- Distant metastasis, NOS

Molecular Genetics Testing - CAP

+ *BRAF* Mutational Analysis (Note A)
+ ___ No mutations detected
+ ___ *BRAF* V600E (c.1799T>A) mutation
+ ___ *BRAF* V600K (c.1798_1799GT>AA) mutation
+ ___ *BRAF* V600R (c.1798_1799GT>AG) mutation
+ ___ *BRAF* V600D (c.1799_1800TG>AT) mutation
+ ___ Other *BRAF* mutation (specify): _____
+ ___ Cannot be determined (explain): _____

+ *NRAS* Mutational Analysis (Note B)
+ ___ No mutations detected
+ ___ *NRAS* Q61R (c.182A>G) mutation
+ ___ *NRAS* Q61K (c.181C>A) mutation
+ ___ *NRAS* Q61L (c.182A>T) mutation
+ ___ *NRAS* Q61H (c.183A>T) mutation
+ ___ *NRAS* G12R (c.34G>C) mutation
+ ___ *NRAS* G12S (c.34G>A) mutation
+ ___ *NRAS* G12D (c.35G>A) mutation
+ ___ *NRAS* G12V (c.35G>T) mutation
+ ___ *NRAS* G13R (c.37G>C) mutation
+ ___ *NRAS* G13S (c.37G>A) mutation
+ ___ Other *NRAS* mutation (specify): _____
+ ___ Cannot be determined (explain): _____

+ *KIT* Mutational Analysis (Note C)
+ ___ No mutations detected
+ ___ *KIT* L576P (c.1727T>C) mutation
+ ___ *KIT* K642E (c.1924A>G) mutation
+ ___ *KIT* V559A (c.1676T>C) mutation
+ ___ *KIT* W557R (c.1669T>A) mutation
+ ___ Other *KIT* mutation (specify): _____
+ ___ Cannot be determined (explain): _____

+ METHODS

+ *BRAF* Mutational Analysis Testing Method
+ ___ Cobas 4800 *BRAF* V600 mutation test
+ ___ THxID *BRAF* assay
+ ___ Allele-specific/real time polymerase chain reaction
+ ___ Direct Sanger sequencing
+ ___ Pyrosequencing
+ ___ SnapShot
+ ___ Mass spectrophotometry genotyping (Sequenom)
+ ___ Next-generation sequencing
  + ___ Amplicon
  + ___ Hybrid capture
+ ___ Other (specify): _____

+ *BRAF* assay sensitivity (specify): _____

Note: Assay sensitivity should be defined as lowest acceptable tumor percentage estimate.

+ *NRAS* Mutational Analysis Testing Method
+ ___ Direct Sanger sequencing
+ ___ Pyrosequencing
+ ___ SnapShot
+ ___ Mass spectrophotometry genotyping (Sequenom)
+ ___ Next-generation sequencing
  + ___ Amplicon
  + ___ Hybrid capture
+ ___ Other (specify): _____

+ *NRAS* assay sensitivity (specify): _____

Note: Assay sensitivity should be defined as lowest acceptable tumor percentage estimate.

+ *KIT* Mutational Analysis Testing Method
+ ___ Direct Sanger sequencing
+ ___ SnapShot
+ ___ Mass spectrophotometry genotyping (Sequenom)
+ ___ Next-generation sequencing
  + ___ Amplicon
  + ___ Hybrid capture
+ ___ Other (specify): _____

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Treatment

National Comprehensive Cancer Network®

NCCN Guidelines Version 4.2020
Cutaneous Melanoma

NCCN Guidelines Index
Table of Contents
Discussion

CLINICAL PRESENTATION

- Suspicious skin lesion
- Assessment of melanoma-related risk factors[a]

→ Biopsy[b]

- Inadequate[c] → Rebiopsy
- Melanoma confirmed[c]

PATHOLOGY REPORT[b,d,e]

- Breslow thickness
- Ulceration status (present or absent)
- Dermal mitotic rate (#/mm²)[f]
- Assess deep and peripheral margin status
- Microsatellitosis[g,h,i] (present or absent)
- Pure desmoplasia[j] if present
- Lymphovascular/ angiolymphatic invasion[i]

PRELIMINARY WORKUP

- H&P with attention to locoregional area, draining lymph nodes
- Complete skin exam

CLINICAL STAGE

- Stage 0 in situ (ME-2)
- Stage IA, Stage IB (ME-2)
- Stage IB, Stage II (ME-3)
- Stage III (ME-5) and (ME-7)
- Stage IV Metastatic (ME-8)

[a]See Risk Factors for Melanoma Development (ME-A).
[b]See Principles of Biopsy and Pathology (ME-B).

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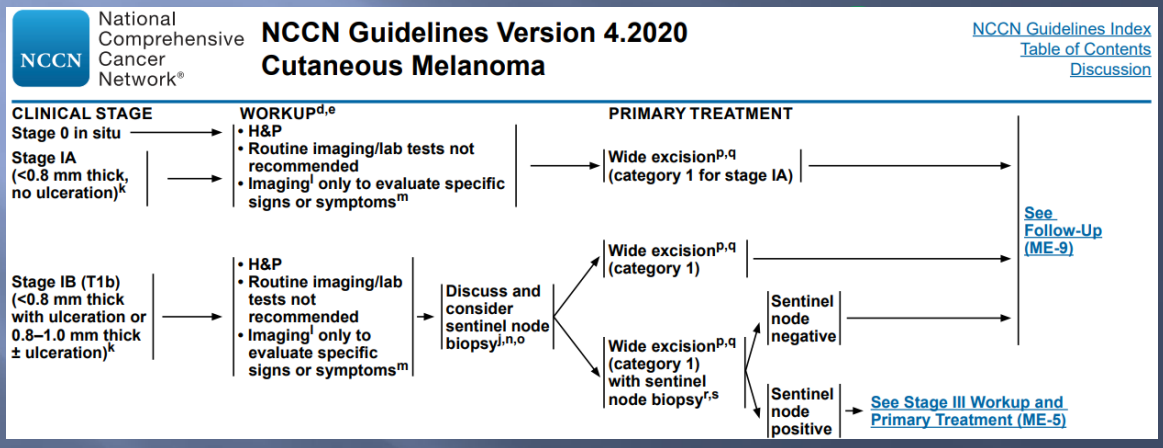
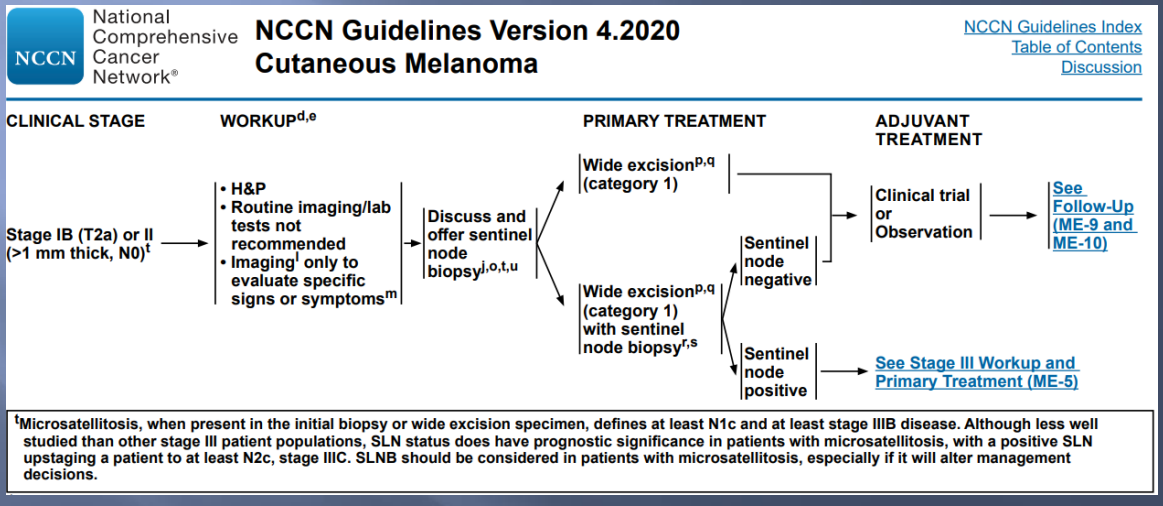
Treatment

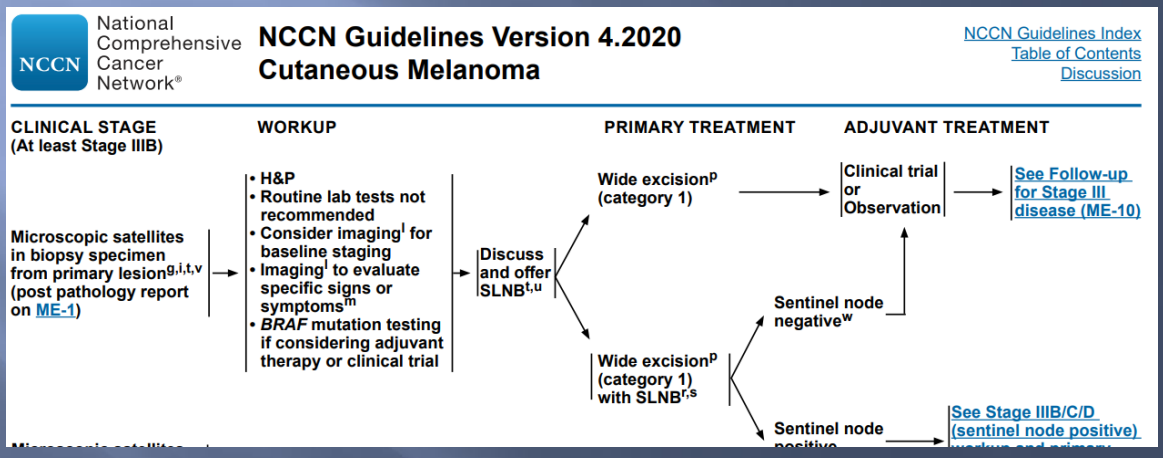


Treatment



[t]Microsatellitosis, when present in the initial biopsy or wide excision specimen, defines at least N1c and at least stage IIIB disease. Although less well studied than other stage III patient populations, SLN status does have prognostic significance in patients with microsatellitosis, with a positive SLN upstaging a patient to at least N2c, stage IIIC. SLNB should be considered in patients with microsatellitosis, especially if it will alter management decisions.

Treatment



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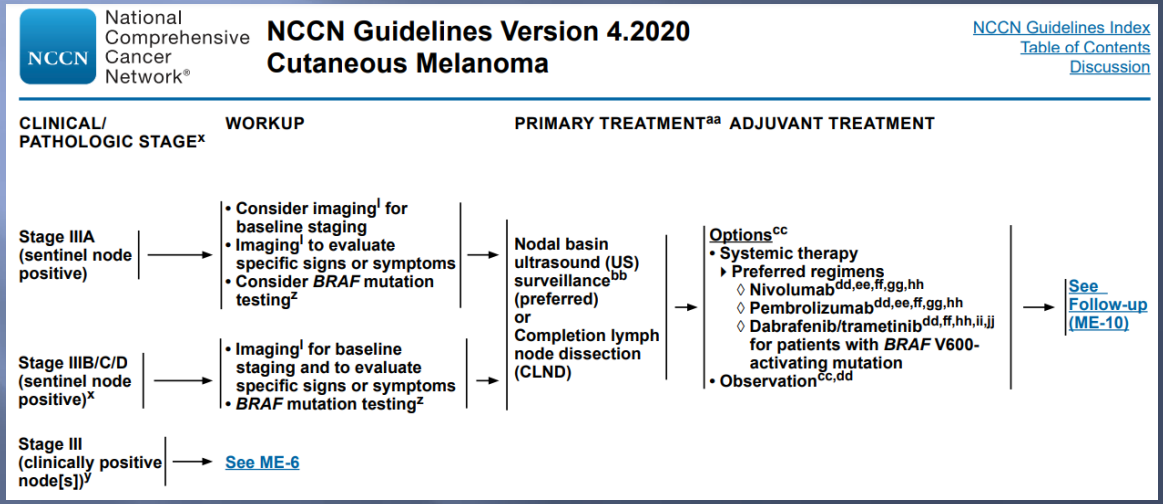
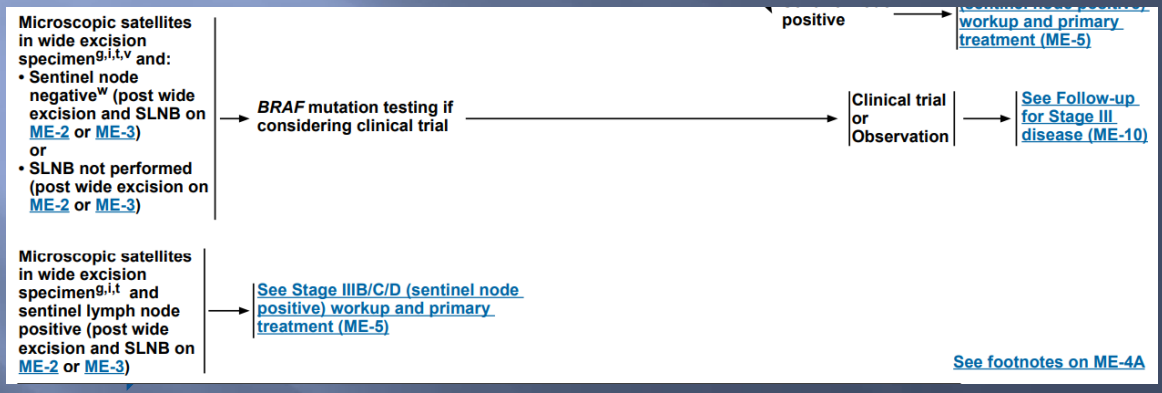


Treatment



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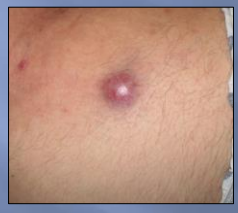
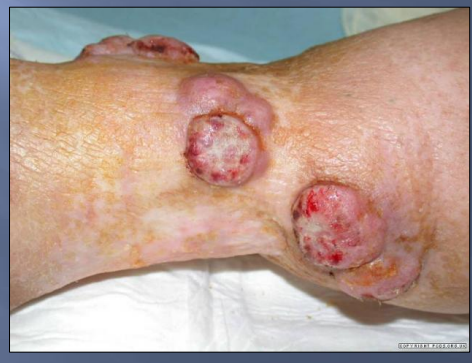
MERKEL CELL CARCINOMA

Merkel Cell Carcinoma





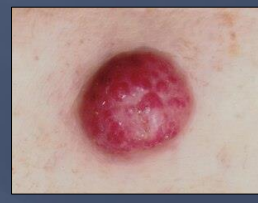


Image courtesy of Paul Nghiem, MD, PhD

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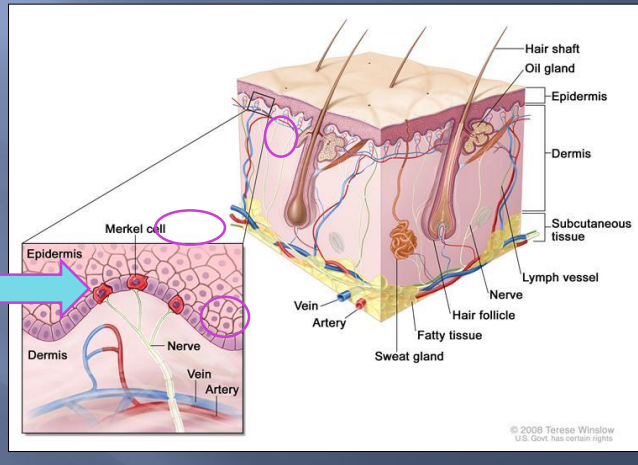
Merkel Cell Carcinoma



Source: http://www.cancer.gov/cancertopics/pdq/treatment/merkelcell

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Incidence by Age

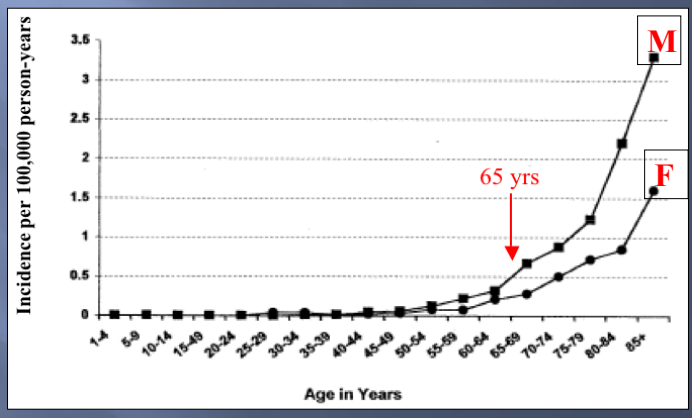

Image courtesy of Paul Nghiem, MD, PhD

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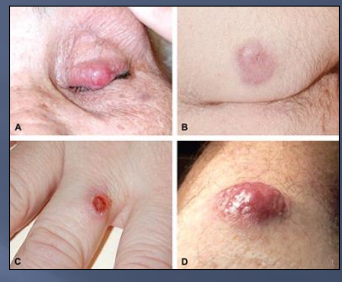
Prognostic Factors

- Location
- Depth of invasion
- Measured thickness
- Lymph node involvement
- Age and general health (particularly immune status)
- Initial diagnosis or recurrence



http://www.skincarephysicians.com/skincancernet/merkel_cell_carcinoma.html

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Staging

American Joint Committee on Cancer (AJCC)
TNM Staging Classification for Merkel Cell Carcinoma
(8th ed., 2017)

***Table 1.* Definitions for T, N, M**

T	Primary Tumor
TX	Primary tumor cannot be assessed (e.g., curetted)
T0	No evidence of primary tumor
Tis	*In situ* primary tumor
T1	Maximum clinical tumor diameter ≤2 cm
T2	Maximum clinical tumor diameter >2 but ≤5 cm
T3	Maximum clinical tumor diameter >5 cm
T4	Primary tumor invades fascia, muscle, cartilage, or bone

Clinical (N)

N	Regional Lymph Nodes
NX	Regional lymph nodes cannot be clinically assessed (e.g., previously removed for another reason, or because of body habitus)
N0	No regional lymph node metastasis detected on clinical and/or radiologic examination
N1	Metastasis in regional lymph node(s)
N2	In-transit metastasis (discontinuous from primary tumor; located between primary tumor and draining regional nodal basin, or distal to the primary tumor) *without* lymph node metastasis
N3	In-transit metastasis (discontinuous from primary tumor; located between primary tumor and draining regional nodal basin, or distal to the primary tumor) *with* lymph node metastasis

Pathological (pN)

pN	Regional Lymph Nodes
pNX	Regional lymph nodes cannot be assessed (e.g., previously removed for another reason or *not* removed for pathological evaluation)
pN0	No regional lymph node metastasis detected on pathological evaluation
pN1	Metastasis in regional lymph node(s)
pN1a(sn)	Clinically occult regional lymph node metastasis identified only by sentinel lymph node biopsy
pN1a	Clinically occult regional lymph node metastasis following lymph node dissection
pN1b	Clinically and/or radiologically detected regional lymph node metastasis, microscopically confirmed
pN2	In-transit metastasis (discontinuous from primary tumor; located between primary tumor and draining regional nodal basin, or distal to the primary tumor) *without* lymph node metastasis
pN3	In-transit metastasis (discontinuous from primary tumor; located between primary tumor and draining regional nodal basin, or distal to the primary tumor) *with* lymph node metastasis

Clinical (M)

M	Distant Metastasis
M0	No distant metastasis detected on clinical and/or radiologic examination
M1	Distant metastasis detected on clinical and/or radiologic examination
M1a	Metastasis to distant skin, distant subcutaneous tissue, or distant lymph node(s)
M1b	Metastasis to lung
M1c	Metastasis to all other visceral sites

Pathological (M)

M	Distant Metastasis
M0	No distant metastasis detected on clinical and/or radiologic examination
pM1	Distant metastasis microscopically confirmed
pM1a	Metastasis to distant skin, distant subcutaneous tissue, or distant lymph node(s), microscopically confirmed
pM1b	Metastasis to lung, microscopically confirmed
pM1c	Metastasis to all other distant sites, microscopically confirmed

NCCN Guidelines – Merkel Cell Carcinoma – Version 4.2020

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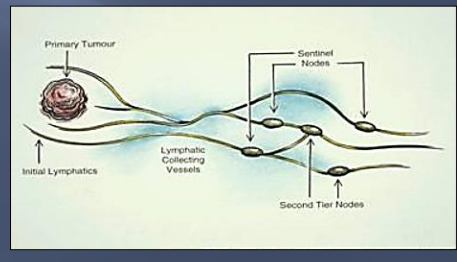
Treatment – Surgery plus Radiation

- Depends on Primary Tumor Location
- Biopsy Primary Tumor
  - Shave Biopsy
  - Punch Biopsy
  - Excisional Biopsy
- Wide excision with 1 to 2.5 cm margins
  - Depending on site
- Sentinel Lymph Node Biopsy
  - If nodes are not palpable
- Palpable Lymph Nodes – Bx/Resection
- Radiation Therapy
  - Primary site
  - Draining lymph node basin



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Treatment – Systemic Treatment

Local Disease:
- Adjuvant chemotherapy is not recommended.
- Recurrent locally advanced
  - Consider pembrolizumab[2] if curative surgery and curative RT are not feasible.[3]

Regional Disease:
- Clinical trial (preferred)
- For recurrent regional disease, consider pembrolizumab[2] if curative surgery and curative RT are not feasible.
- Adjuvant chemotherapy is not routinely recommended for regional disease as survival benefit has not been demonstrated in available retrospective studies, but could be used on a case-by-case basis if clinical judgment dictates.
  Options useful in certain circumstances:
  - Cisplatin ± etoposide
  - Carboplatin ± etoposide

Disseminated Disease:
- Clinical trial (preferred)
- Preferred interventions:
  - Avelumab[2]
  - Pembrolizumab[2]
  - Nivolumab[2]
- Useful in certain circumstances as clinical judgment dictates for patients with contraindications to checkpoint immunotherapy:
  - Cisplatin ± etoposide
  - Carboplatin ± etoposide
  - Topotecan
  - Cyclophosphamide, doxorubicin (or epirubicin), and vincristine (CAV)

NCCN Guidelines – Merkel Cell Carcinoma – Version 4.2020

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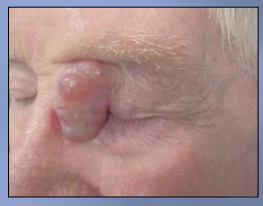
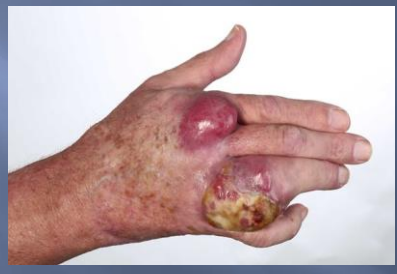
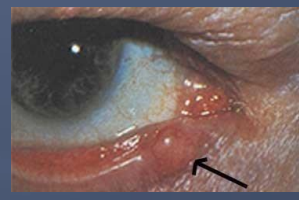
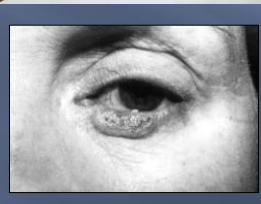
OTHER SKIN CANCERS

Skin









Source: Journal of the American Academy of Dermatology, 2008 Mar;58(3):375-81
Source: http://www.dermis.net/dermisroot/en

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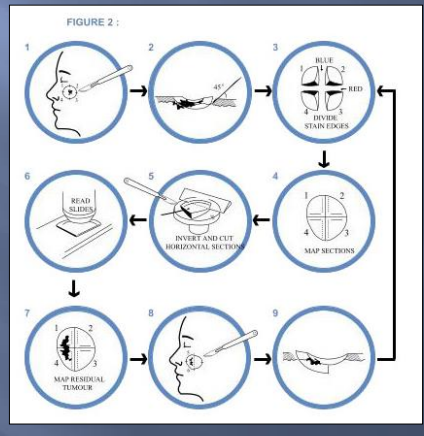
BCC and SCC



Source: http://www.skinspecialistcentre.co.nz/assets/image/mohs/mohsproc.jpg

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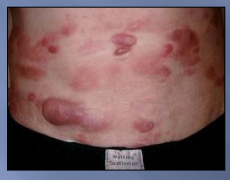
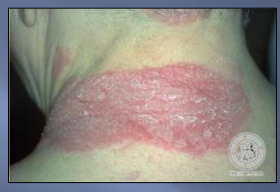
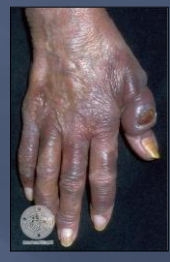
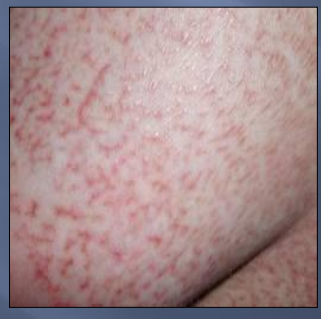
Mycosis Fungoides









http://www.dermis.net/dermisroot/en/

Mycosis Fungoides

MYCOSIS FUNGOIDES AND SEZARY DISEASE OF SKIN, VULVA, PENIS, SCROTUM
C44.0-C44.9, C51.0-C51.2, C51.8-C51.9, C60.0-C60.1, C60.8-C60.9, C63.2 (M-9700-9701)

C44.0 Skin of lip, NOS (excludes vermilion border C00._)	C51.0 Labium majus
C44.1 Eyelid <>	C51.1 Labium minus
C44.2 External ear <>	C51.2 Clitoris
C44.3 Skin of other and unspecified parts of face <>	C51.8 Overlapping lesion of vulva
C44.4 Skin of scalp and neck	C51.9 Vulva, NOS
C44.5 Skin of trunk <>	C60.0 Prepuce
C44.6 Skin of upper limb and shoulder <>	C60.1 Glans penis
C44.7 Skin of lower limb and hip <>	C60.8 Overlapping lesion of penis
C44.8 Overlapping lesion of skin	C60.9 Penis, NOS
C44.9 Skin, NOS	C63.2 Scrotum, NOS

<> Laterality must be coded for this site. For codes C44.3 and C44.5, if the tumor is midline (e.g., nose), code as 9 (midline) in the laterality field.

SUMMARY STAGE

1 Localized only

Plaques, papules, or erythematous patches ("plaque stage"):

<10% of skin surface, no tumors
Limited plaques
MFCG Stage I

≥10% of skin surface, no tumors
Generalized plaques
MFCG Stage II

% of body surface not stated, no tumors

Skin involvement, NOS: extent not stated, no tumors

Localized, NOS

2 Regional by direct extension only

Tumor Stage

One or more tumors (tumor stage)

Generalized erythroderma (>50% of body involved with diffuse redness)
Sezary syndrome
MFCG Stage III

MYCOSIS FUNGOIDES AND SEZARY DISEASE OF SKIN, VULVA, PENIS, SCROTUM
C44.0-C44.9, C51.0-C51.2, C51.8-C51.9, C60.0-C60.1, C60.8-C60.9, C63.2 (M-9700-9701)

3 Lymph node(s) involved only

Lymph Nodes:

Both clinically enlarged palpable lymph node(s) (adenopathy) and pathologically positive lymph nodes

Clinically enlarged palpable lymph node(s) (adenopathy), and either pathologically negative nodes or no pathological statement

No clinically enlarged palpable lymph nodes(s) (adenopathy) but pathologically positive lymph node(s)

Lymph node(s), NOS

4 Regional by BOTH direct extension AND lymph node(s) involved

Codes (2) + (3)

5 Regional, NOS

7 Distant site(s) involved

Visceral (non-cutaneous, extranodal) involvement
MFCG Stage IV

Further contiguous extension

Metastasis

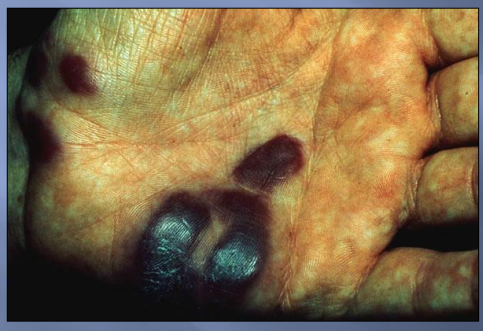
9 Unknown if extension or metastasis

Source: Stage groups developed by the Mycosis Fungoides Cooperative Group (MFCG)

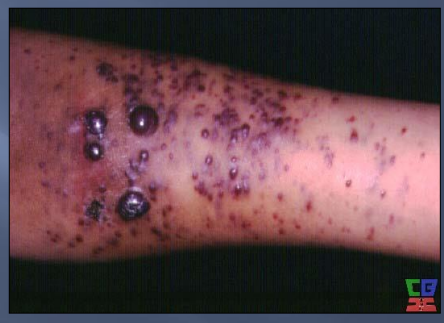
Note 1: Code 0 is not applicable for this schema.

Note 2: Since there was no separate staging schema in either the Historic Stage or the 1977 Summary Staging Guide schema for Mycosis Fungoides and Sezary Disease of the skin, vulva, penis, and scrotum, these cases would have been staged previously using the schema for "skin other than melanoma".

Kaposi Sarcoma



Source: http://www.pathguy.com



Source: http://virology-online.com/viruses/HHV-6.htm

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Kaposi Sarcoma

KAPOSI SARCOMA OF ALL SITES
(M-9140)

SUMMARY STAGE

1 Localized only

Single lesion or multiple lesions in ONE of the following:
Mucosa (e.g., oral cavity, anus, rectum, vagina, vulva)
Skin
Viscera (e.g., pulmonary, gastrointestinal tract, spleen, other)

2 Regional by direct extension only

Multiple lesions in any TWO of the following:
Mucosa (e.g., oral cavity, anus, rectum, vagina, vulva)
Skin
Viscera (e.g., pulmonary, gastrointestinal tract, spleen, other)

3 Lymph node(s) involved only

Both clinically enlarged palpable lymph node(s) (adenopathy) and pathologically positive lymph nodes

Clinically enlarged palpable lymph node(s) (adenopathy), and either pathologically negative nodes or no pathological statement

No clinically enlarged palpable lymph nodes(s) (adenopathy) but pathologically positive lymph node(s)

Lymph node(s), NOS

4 Regional by BOTH direct extension AND lymph node(s) involved

Codes (2) + (3)

7 Distant site(s) involved

Lesions in ALL THREE of the following:
Mucosa (e.g., oral cavity, anus, rectum, vagina, vulva)
Skin
Viscera (e.g., pulmonary, gastrointestinal tract, spleen, other)

Further contiguous extension

Metastasis

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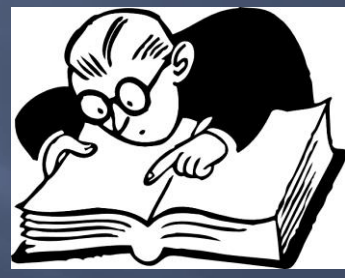
Additional Resources

- CDC Information about Skin Cancer and Melanoma
- American Cancer Society and Canadian Cancer Society
- NCI Physician Data Query for Healthcare Professionals
- WHO Classification of Tumors of Skin, 4rth ed
- Solid Tumor Rules, SEER 2021
- NCCN Evidence Based Treatment Guidelines, NCCN, 2020
- American Society of Clinical Oncology, ASCO, 2020
- NAACCR Cancer Registry Webinar Series & 2021 Data Standards
- SEER Training for Cancer Registry Professionals
- AJCC Cancer Staging Manual, 8th ed., AJCC, 2017
- College of American Pathologists, CAP Checklists
- WHO 2020 Melanoma Skin Cancer Report – Euro Melanoma/Global Coalition for Melanoma Patient Advocacy



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Questions

HAPPY THANKSGIVING TO ALL

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