

Directly Coded Summary Stage

Melanoma

National Center for Chronic Disease Prevention and Health Promotion
Division of Cancer Prevention and Control, National Program of Cancer Registries



1

Note: if a general overview of Summary Stage is not needed, you may skip to slide 16.

Directly coded Summary Stage is required from all reporters for CDC's National Program of Cancer Registries (NPCR). Registries that report to the American College of Surgeons or SEER must meet the additional criteria required by those organizations as well as NPCR requirements. The following slides will be a review for some and new information for others.

"SEER Summary stage is different from TNM Staging. Summary stage describes the cancer growth or extension, how far the disease has spread from its point of origin. SEER summary staging is sometimes referred to as generalized staging. It combines both clinical and pathological documentation.

SEER Summary Stage is required by central registries. Summary stage has practical uses as well. Physicians, epidemiologists and other healthcare professionals use the terms local, regional and distant to describe a cancer.

A breast cancer may be unknown stage in AJCC TNM, but can be described accurately using summary stage. Also not every tumor has an AJCC staging schema. An example would be a breast sarcoma. You can use Summary Stage to categorize a sarcoma of the breast, however there is no applicable staging in TNM for a breast sarcoma.

Directly Coded Summary Staging

- Summary Stage is a basic way of categorizing how far a tumor has spread from its point of origin at the time of diagnosis.
- Summary Stage applies to every anatomic site, including the lymphomas and leukemia's.
- The staging categories are broad enough to measure the success of cancer control and other epidemiologic efforts.
- Summary Stage includes a combination of clinical and pathologic information on the extent of disease.
- Includes information within four (4) months of diagnosis through the completion of surgeries—whichever is longer.

2

Next few slides are a short review of Summary Stage 2000.

Summary Staging is based on the extent of tumor spread at the time of diagnosis and is an efficient method of assigning that information into specific categories for analysis. It is the most basic staging system and is used for staging all anatomic sites, including the lymphomas and leukemias, which have their own Summary Stage rules.

The timing to assign Summary Stage is limited to information obtained through the completion of surgeries in the first course of treatment, or within 4 months of diagnosis in the absence of disease progression; whichever is longer.. Stage is always assigned at the time of diagnosis, so do not include any progression of disease when assigning stage

Determining the Stage

□ Review of Medical Reports

- History and physical exam and work up documents
- Operative and pathology reports
- imaging reports for documentation of primary site and any spread
- Pathology reports
- Others
- Make note of the “negative” as well as positive findings in your text

□ Review the anatomy of the site:

- Lymph nodes
- Adjacent tissues/organs
- Distant sites

Although Summary Staging is a very basic staging system, a careful review of the medical record is necessary to gather information for assigning the stage.

- History and Physical Exam
- Radiology Reports
 - Assessment tumor in primary site
 - Lymph node involvement
 - Spread to other areas of the body, etc.
- Operative Reports
 - Surgeon's findings of cancer involvement (especially if those areas are not biopsied or sampled)
 - May or may not be useful for some cancers but should be reviewed
- Pathology Reports
- Medical Consultation Reports and any other
- Pertinent Correspondence

Review the anatomy of the site, the regional lymph nodes and secondary sites that are considered distant spread for that primary.

Assigning the Correct Summary Stage Code

Nine possible codes for Summary Stage

- 0 = In-Situ
- 1 = Localized
- 2 = Regional disease by direct extension only
- 3 = Regional disease with only regional lymph nodes involved
- 4 = Regional disease by both direct extension and regional lymph node(s)
- 5 = Regional disease that is not otherwise specified
- 7 = Distant sites and/or distant lymph node involvement
- 8 = Benign and borderline CNS tumors
- 9 = Unknown if there is extension or metastatic disease (unstaged, death certificate only cases)

Summary Staging is correctly assigning one of nine single-digit codes that describes the tumor extent at the time of diagnosis. There are nine codes that can be assigned in general, but only 8 possible for most cancers. Code 8 is used for benign and borderline CNS tumors.

The codes are in ascending order, starting with the most minimal tumor involvement or growth up to distant spread. A thorough evaluation of the medical record(s) documentation will normally provide the information for accurate summary staging to be coded.

An in-depth explanation of the Summary Stage categories can be found at <http://seer.cancer.gov/tools/ssm>

Code 9, or unknown stage should be used only when all efforts to establish the stage of disease have been exhausted or it is a death certificate only case (which can only be assigned by the central cancer registry). Code 5 or Regional, NOS should likewise only be assigned when a more specific regional stage cannot be determined

3

4

Important to note:

- SEER Summary Staging Manual 2000 includes:
 - Ambiguous Terminology – SEE pg. 15
 - Terms used to consider involvement
Ex: “adherent to” or “probable”
 - Terms used that do not consider as involvement
Ex: “attached” or “possible”

<http://seer.cancer.gov/tools/ssm/>

5

The list of ambiguous terminology is extremely important when assigning a Summary Stage. For example: a tumor “adherent to” or “probable” are considered as meaning involvement by tumor. While terms such as “attached” or “possible” are not to be considered as involvement.

Keeping a list of “Ambiguous Terminology” within easy reach or bookmarked on the electronic PDF will provide an easy check point when you see ambiguous terms used in the medical record. Make sure you use the term in your text as well.

Note : Ambiguous Terminology list is for SEER Summary Staging ONLY. AJCC Stage does not have an Ambiguous Terminology list.

Important to note:

SEER Summary Staging Manual 2000 includes:

- ❑ General rules and guidelines
- ❑ Anatomy graphics
- ❑ A criteria list to assign each stage category in each chapter
- ❑ Notes included in sites that contain additional information
- ❑ Historical information for analyses--#

<http://seer.cancer.gov/tools/ssm/>

6

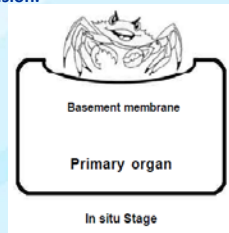
Carefully review the general rules and guidelines in the beginning of the manual to assign stage accurately. The anatomy graphics available in some site specific chapters and the criteria for assigning each stage is listed for every chapter. There are “notes” that may be listed for some sites that provide additional information.

There are also ## for historical information to provide information necessary when analyzing data that includes case staged with older versions of Summary Stage.

What Does Summary Stage In Situ Mean? Code 0

- In-Situ is defined as malignancy without invasion.
 - Only occurs in carcinomas and melanomas
 - Must be microscopically diagnosed

- Note:
 - *microinvasion is at least localized or code 1*
 - If there is nodal involvement or spread, **the cancer cannot be in-situ**



Generally, a cancer begins in the rapidly dividing cells of the epithelium or lining of an organ and grows from the inside to the outside of an organ. If there is no penetration of the basement membrane of the tissue and no stromal invasion, it is in situ. There are multiple synonymous terms that describe an in-situ carcinoma or melanoma. These terms are also in the staging manual on page 3.

It is important to know that in-situ stage is assigned for carcinomas and melanomas but never for sarcomas, lymphomas or leukemias. Only carcinomas and melanomas develop in tissues that have an epithelial layer with a basement membrane.

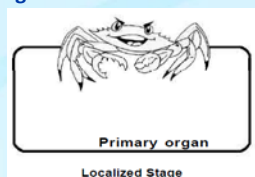
In-Situ tumors are found on the surface of the organ and microscopically have characteristics of malignant tumors. An in-situ lesion has not yet invaded or penetrated through the basement membrane. You cannot see the basement membrane of cells with the naked eye so an in situ lesion must be diagnosed under the microscope.

A diagnosis of in-situ with micro-invasion takes it out of the in-situ stage category and it is considered at least localized. These micro-invasive cells are now able to penetrate and be carried through the lymphatic system or blood and invade other organs.

If there is evidence of either nodal or metastatic disease, in situ cannot be assigned as the stage of disease.

What Does Localized Summary Stage Mean? Code 1

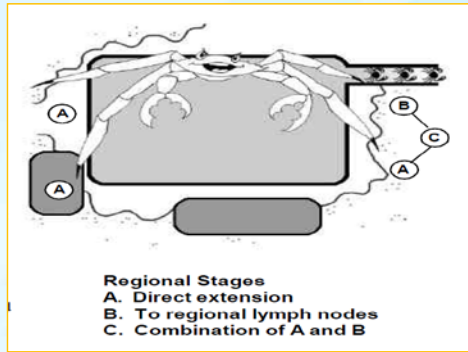
- Malignancy is limited to organ of origin.
- No spread beyond the organ of origin.
- Infiltration past the basement membrane of epithelium into the functional part of the organ; however, there is no spread beyond the boundaries of the organ.



Source: SEER Summary Stage Manual - 2000

Localized stage is coded when the malignancy is limited to the organ of origin. It has not spread to any other organs, lymph nodes or adjacent tissues. The criteria to assign localized stage is listed for each site.

What Does Regional Disease Mean?



Source: SEER Summary Stage Manual - 2000

Graphic for Regional Disease

- Direct extension into adjacent tissues or organs (only)-Code 2
- Regional lymph nodes are involved (only) Code 3
- Combination of A and B or regional to BOTH adjacent tissues/organs and the regional lymph nodes. Code 4

9

What Does Regional Stage Mean? Codes 2, 3, 4, or 5

- **Regional by direct extension (Code 2)**
Tumor has invaded surrounding organ(s) or adjacent tissues. May also be referred to as direct extension or contiguous spread.
- **Regional to lymph nodes (Code 3)**
Tumor cells may have traveled through the lymphatic system to regional lymph nodes where they remain and begin to "grow."
- **Regional by direct extension and lymph nodes (Code 4)**
Extension into adjacent structures or organs and lymph node involvement are both present.
- **Regional, NOS (Code 5)**
Regional spread or disease is the only information available

The regional lymph nodes are listed for each site in the manual chapters. If the medical record indicates nodal involvement, but you do not see that particular node named in the manual consult a medical dictionary. The documented involved lymph node(s) term used may be a synonymous term for those listed. If the term is NOT synonymous with a listed term, assume distant nodes are involved and stage as distant.

Regional by both direct extension and involving regional lymph nodes is coded as 4.

Code 5 indicates there that patient has regional disease, but no other documentation to would allow a more specific regional stage to be assigned---Regional, NOS, (Not Otherwise Specified)

The criteria to assign each of the regional stages is listed for each site.

The terms "enlarged", "visible swelling", "shotty" or "palpable" for lymph nodes are NOT considered involvement.

10

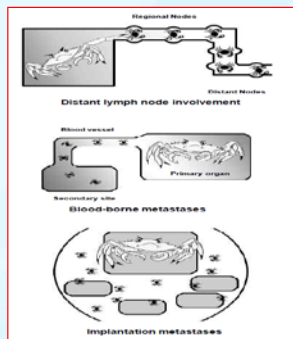
Regional Disease indicates that the tumor has gone beyond the organ of origin but is not considered distant.

Regional stage is divided in three classifications. Regional by direct extension or contiguous spread (Coded as 2) occurs when the tumor invades into adjacent tissue or organs. Review the record to be certain that there are no nodes or distant tumor involvement before assigning this code.

Regional to lymph nodes or code 3 indicates that tumor cells have found their way to node(s) that are considered regional and have actively begun "to grow." The record should document that nodal involvement is the only disease other than the primary in order to assign code 3.

What does Distant Stage Mean?

(code 7)



Source: SEER Summary Stage Manual - 2000

Graphic for distant stage:

Distant lymph nodes are involved or
Tumor cells have traveled via the blood vessels to
distant sites or
Cavity fluids with tumor cells have “seeded” to other
organs.

The malignancy has gone beyond the local organ of
origin and regional tissues and lymph nodes.

11

What does Distant Summary Stage Mean?

Code 7

Distant Stage indicates that the tumor has spread to areas beyond the regional sites.

- These sites may be called:
 - Remote
 - Metastatic
 - Diffuse
- Distant lymph nodes are those that are not included in the drainage area of the primary tumor.
- Hematogenous metastases develop from tumor cells carried by the bloodstream and begin to grow beyond the local or regional areas.

Distant metastases is the spread by tumor through
blood or lymphatics that carry tumor cells to areas of
the body beyond the primary or regional areas.
While there are several sites that are normally
expected to be involved in distant spreading,
metastatic disease can occur in any distant site.

12

General Tips for the Abstractor

- Distant disease is documented, no need for further chart review
- Pathology reports that contain a statement of invasion, nodal involvement or metastatic spread, in situ stage is ruled out *even when the path reports states “in situ”*
- If there are nodes involved, the stage must be at least regional to lymph nodes
- Any unidentified nodes included with the pathology specimen of primary site are considered regional nodes

If there is documented distant disease, there is no
further need to continue looking for stage---finished.
If the pathology report mentions any statement of
invasion, nodal involvement or metastatic spread, in
situ stage is ruled out –even if the path report says
“in situ”.

If nodes are involved with cancer, the stage must
be at least regional to lymph nodes (code 3).

Any unidentified lymph nodes included with the
resected primary tumor are considered to be
Regional, NOS (code 5).

13

<div data-bbox="123 96 805 621"> <h3>General Tips for the Abstractor</h3> <ul style="list-style-type: none"> ❑ Ignore lymph node terms <ul style="list-style-type: none"> ▪ Palpable ▪ Visible swelling ▪ Shotty ❑ Ignore lymph node terms (except for lung primaries) <ul style="list-style-type: none"> ▪ Enlarged ▪ Lymphadenopathy ❑ Consider lymph node involvement for solid tumors <ul style="list-style-type: none"> ▪ Fixed ▪ Matted ▪ Mass in the mediastinum ▪ Retroperitoneum and/or ▪ Mesentary </div> <div data-bbox="123 632 155 663">14</div>	<p>The physician may mention some of the terms you see on this slide and it's important to recognize when a term is considered to mean involvement and when the term should be ignored. In the middle of the slide, please note that the exception for this rule are the lung primaries (these terms are ignored for all other primaries).</p> <p>Notice the terms that are considered involvement for solid tumors on the slide. Not on the slide but also important to note, for lymphomas, any mention of lymph nodes is considered involvement and is used to determine the number and location of lymph node chains involved.</p>
<div data-bbox="123 779 805 1304"> <h3>General Tips for the Abstractor</h3> <ul style="list-style-type: none"> ❑ Distinguishing the difference between direct extension and distant metastases: <ul style="list-style-type: none"> ▪ Secondary site, tumor ON the surface, most likely direct extension ▪ Secondary site, tumor IN the organ, distant spread ❑ Unknown stage: <ul style="list-style-type: none"> ▪ If the record does not contain enough information to code a stage, it must be recorded as unstageable ▪ Unknown primary/unknown stage (Code 9) ▪ Use sparingly and only when absolutely necessary ❑ Code 8 <ul style="list-style-type: none"> ▪ Limited to benign/borderline CNS tumors </div> <div data-bbox="123 1314 155 1346">15</div>	<p>A good way to remember the difference between direct extension and distant metastases, if the secondary site is on the surface of the organ it is most likely by a direct extension. If the secondary site is in the organ, it had to have traveled there by the blood—a blood borne metastasis. In most cases, there is no continuous trail of tumor cells between the primary site and the distant site.</p> <p>If there is not enough information to code a stage, use 9 for unknown stage. Unknown primary sites are always unknown stage. However, this stage should be used very sparingly and only when necessary. An unknown data item eliminates that data item from analysis.</p> <p>Code 8 was added to Summary Stage when benign and borderline CNS tumor became required in 2004. You will not find this code in the SS Manual, it was agreed upon by all standard setting agencies.</p>

Melanoma Review of Medical Information

- ❑ **History and Physical Exam**
 - Location and appearance of lesion
- ❑ **Imaging Reports**
 - Lymph node involvement
 - Regional or distant spread
- ❑ **Operative Reports**
 - Primary tumor description and excision
 - Lymph node excision
- ❑ **Pathology Reports**
 - Thickness (Breslow's)
 - Level of invasion (Clark's)
 - Satellite lesions
 - Lymph node involvement

Begin gathering the information to code the stage by carefully reviewing documents in the medical record. History and physical exams at work-up will provide information:

- **Location of tumor**
- **Ulceration of tumor**
- **Palpable or suspicious lymph nodes**
- **Satellite lesions, etc.**

The operative report for melanomas may or may not provide additional information but should be carefully reviewed.

Pathology reports should provide:

- **Breslow's thickness, or tumor thickness**
- **Clark's level**
- **Satellite lesions or intransit metastases.**
- **Margins (size and disease status)**
- **Sentinel node biopsy results (sentinel node biopsy is usually done for tumor with a thickness of 1mm or greater)**

All of the items on this slide should be also be documented in your text.

Melanomas

- ❑ Summary Stage Melanoma chapter also includes ICD-O codes *other than* C44.0. For the skin of the following:
 - Vulva
 - Penis, and Scrotum
- ❑ Staging criteria is the same for all sites listed
- ❑ Regional lymph nodes are listed for each primary site within the melanoma chapter
- ❑ All melanoma skin sites:
 - Satellite nodules >2cm from primary site is Regional to Lymph Nodes
 - Satellite nodules ≤2cm from primary site is Regional by Direct Extension

Source: SEER Summary Stage Manual - 2000

The skin is the largest organ in the body. The Summary Stage chapter includes melanomas for the skin or C44.0 site codes and melanomas of the skin of the vulva, penis and scrotum.

The Summary Staging criteria for assigning the stage of disease is the same for all the site codes listed in the chapter (C44.0-C44.9, C51.0, C51.2, 3 8 and 9, C60.0, .8 and .9 and C63.2).

The Regional Lymph Nodes are listed for each general area of the skin, such as the Head and Neck, upper and the lower trunk, etc.

In transit metastases or Satellite nodules from any primary skin melanoma is considered **at least Regional** (if there is documentation of distant disease, stage accordingly). The slide indicates the centimeters from the primary to determine which specific category of Regional should be assigned when there are in transit or satellite nodules----- unless there is documentation of distant spread.

Melanomas Prognostic Factors (not part of Summary Stage)

- ❑ **Breslow's thickness**
- ❑ **Mitotic Rate**
 - Higher rates associated with:
 - more rapidly dividing cells,
 - larger lesions with greater potential for metastases
- ❑ **Skin ulceration**
- ❑ **Number of regional lymph nodes involved**

Important to document all of these items in your text!

Source: SEER Summary Stage Manual - 2000

18

Melanomas have at least four important prognostic indicators that while not part of Summary Stage, they are prognostic factors of **outcomes** and should be recorded in the text.

- Breslow's thickness, measures the thickness of the tumor defined by Dr. Alexander Breslow. Some medical authorities consider the melanoma thickness just as important if not more so, than depth of invasion. That's why it's very important to document the thickness in your text. Very useful information to have for studies.
- Mitotic rate: This term describes the frequency of cell division within the melanoma. Higher mitotic rates are associated with more rapidly dividing cells and therefore larger lesions, with greater potential for metastasis and poorer prognosis. Mitotic rate is thought to be the second most important factor (behind Breslow thickness) in determining prognosis, with a higher rate being predictive of a poorer prognosis. This value is used to stage very thin melanomas (<1mm).
- Skin ulceration and
- Number of regional lymph nodes involved (which does have a separate data field but should also be documented in the text).

Melanoma Prognostic Factor

Clark's Level and Stage

<u>Clark's Level</u>	<u>Summary Stage</u>
I	In Situ
II-IV	Local
V	Regional by Direct Extension only

19

Another important prognostic factor is Clark's Level as defined by Dr. Wallace Clark. Clark's level is part of the criteria for Local and Regional Summary Stage.

Clark's level measures the level of invasion. The table on this slide demonstrates how the Clark's level of invasion relates to the depth of invasion (or extent of invasion) and Summary Stage. Again, document the Clark's level in your text.

Be on the alert for any new prognostic factors that should be noted also in your text.

Melanoma Prognostic Factors

Local Stage

Clark's Level	Breslow's thickness
II	<or=.75mm
III	.76 to1.50mm
IV	1.51mm-4mm

Clark's level V—at least Regional by Direct Extension

This slide shows the relationship between Clark's Level and Breslow's thickness for Local Stage.

It is most important to document Breslow's thickness for Local melanomas of the skin. (Clark's level V - tumor has invaded through the dermis and is no longer local).

20

Melanomas

- **Discrepancy between Clark's level and path report**
 - Code to the higher (more extensive) Summary Stage
 - Document the discrepancy in the text

Source: SEER Summary Stage Manual - 2000

If there is a discrepancy between the Clark's Level and the pathologic description of the extent of disease, use the higher Summary Stage. For instance, Clark's level is documented as a level IV (localized) but the path report describes extension into the subcutaneous tissue (regional by direct extension). Assign the higher stage of Regional by Direct Extension.

Let's move on to the anatomy of the skin.

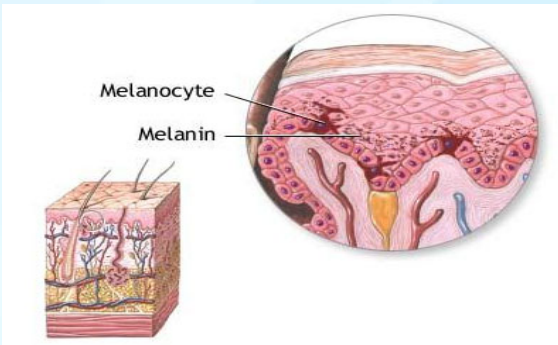
21

22

- **Epidermis**
 - Outer most layer that protects the body from the environment
 - Contains the melanocytes from which melanoma develops
 - Contains Langerhans' cells which are involved in the immune system in the skin
 - Contains Merkel cells and sensory nerves
 - Epidermis is made up of 5 sublayers that work together to continually rebuild the skin
 - Basal Cell Layer-continually divide and push older cells to the skin surface—referred to as the Stratum germinativum on the slide (on the left)
 - Merkel cells and Melanocytes reside in the basal layer of the epidermis
 - Melanocytes produce a skin coloring called melanin—which gives skin its coloring (patches of melanin cause birthmarks, freckles and age spots)
 - Melanocytes protect the deeper layers of the skin from harmful effects of the sun's ultraviolet rays
 - Harmful effects cause melanocytes to produce more melanin – which results in a tan
 - **Melanoma develops when melanocytes undergo malignant transformation**
 - Stratum Granulosum (left on slide) is located above the Basal layer of the epidermis
 - Maturing basal cells are called squamous cells or keratinocytes--also known as the stratum spinosum or spiny layer
 - Keratinocytes produce keratin, which is a protective protein that makes up most of the skin, hair and nails
 - This layer of the epidermis also contains the Langerhans cells
 - Stratum Corneum-the outermost layer of the epidermis (top left on slide)
 - Continually sheds dead keratinocytes
 - Continual renewal of keratinocytes
- **Dermis** is located beneath the epidermis and is the thickest of the 3 layers (slide on the right)
 - Helps regulate body temperature
 - Supplies the epidermis with nutrients

- Most of the body's water supply is located in the dermis
- Contains most of the specialized cells and structures (blood vessels, lymph vessels, hair follicles, sweat glands, sebaceous or oil glands, nerve endings and collagen)
- **Subcutis** is the innermost layer of the skin (slide on right) also known as the hypodermis or subcutaneous layer
 - Conserves body heat
 - Shock-absorber for inner organs
 - Blood vessels, nerves, hair follicles also cross this layer

Anatomy of the Skin



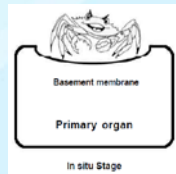
This slide shows an up close of the epi-dermis with the melanocytes and melanin. **Melanoma develops when melanocytes undergo malignant transformation.**

23

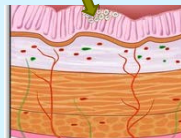
In Situ Summary Stage Code 0

Melanoma common terms for in situ:

- Behavior code = 2
 - Intraepidermal
 - Clark's level 1
 - Lentigo maligna
 - Hutchinson melanotic freckle
 - Precancerous melanosis



In Situ Lesion



Source: SEER Summary Stage Manual - 2000

In situ means that only the epidermis is involved. Once the dermis is invaded/involved, the melanoma is no longer in situ.

There are multiple synonymous terms that describe an in-situ carcinoma or melanoma. In situ means no penetration below basement membrane. There are more terms for in situ in the staging manual on page 3.

This slide lists the terms for in situ that are most usually seen for melanomas.

The last 3 three terms **must** have a behavior code of 2 and do not include the word "melanoma". All three histologies or cell types, like any in situ cancer, may become an invasive malignant melanoma.

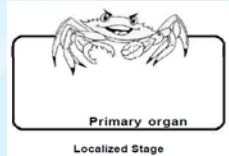
- **Intraepidermal**
- **Clark's level 1**
- **Lentigo maligna**
- **Hutchinson melanotic freckle**
- **Precancerous melanosis**

24

Local Summary Stage Code 1

Localized Melanoma

- ❑ Behavior Code of 3
- ❑ Dermis is invaded
 - Papillary dermis Clark's II
 - Papillary-reticular dermis Clark's III
 - Reticular dermis Clark's IV
 - Skin/dermis, NOS
 - Localized, NOS



Invades the second layer--Dermis

Source: SEER Summary Stage Manual - 2000

Once the dermis is invaded/involved, the melanoma is no longer in situ, it is at least Local and the behavior code will be a 3.

The behavior code must be a 3 and the melanoma extends into the dermis. When looking at the graphic you can see three distinct layers. The top is the epidermis, next the white area represents the dermis and the bottom layer is the subcutis or subcutaneous layer. It is the deepest layer of the skin.

Be careful of terms:

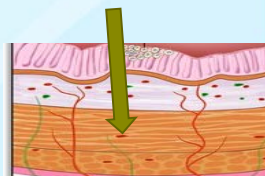
Vascular invasion
lymphatic invasion

*Notice that there are vessels in the dermis. As with other solid tumors, involvement of the vessels indicates the **potential** of spread, not actual spread, so the stage is still local. Remember that the dermis contains most of the skin's specialized cells, (Blood vessels, lymph vessels, hair follicles, sweat glands, sebaceous glands, and nerve endings).*

NOTE: Go back to slide 22 or 23 for a better graphic if this one isn't understood.

Regional by Direct Extension Summary Stage Code 2

- ❑ **Subcutaneous tissue invaded**
 - Clark's level V
 - Entire dermis layer is invaded
- ❑ **Satellite nodule, NOS**
 - ≤2cm from primary



invades through the dermis into the Subcutis

Source: SEER Summary Stage Manual - 2000

Regional by Direct Extension indicates that the melanoma has penetrated through the entire 2nd layer or the dermis into the subcutaneous or third layer. It is the deepest layer of the skin or Clark's level V. It is also known as the hypodermis.

If there are satellite nodules in the skin **LESS than or EQUAL TO 2cm** from the primary site, this is also considered Regional by Direct Extension.

Note: If needed go back to slide 22 or 23 for a better graphic if this one isn't understood.

Regional Lymph Nodes Summary Stage Code 3

- ❑ Primary melanoma involves the regional lymph nodes (only)
- ❑ Regional Lymph Nodes are listed by the primary skin site
- ❑ Involved node is not listed for a skin site
 - Look for synonymous terms—
 - Synonymous node names are Code 3
 - Non-synonymous are Code 7 or Distant Stage
- ❑ In-transit metastasis (satellite nodules >2cm from the primary tumor)
- ❑ Regional lymph nodes, NOS

Source: SEER Summary Stage Manual - 2000

27

Regional lymph node(s) or code 3 is assigned when the only involvement beyond “Local” or code 1 is the Regional Lymph Nodes---there is no evidence of Regional by Direct Extension or Distant Disease (codes 2 or 7).

Summary Stage Manual lists the regional nodes by the site of the skin primary, (Upper Trunk, Lower Trunk, etc.). We will come back to the regional nodes by primary skin in more detail later.

If there is documentation of lymph node involvement only, and the involved lymph node(s) is not listed in the manual for that particular skin site, consult references (Medical Dictionary, etc.).

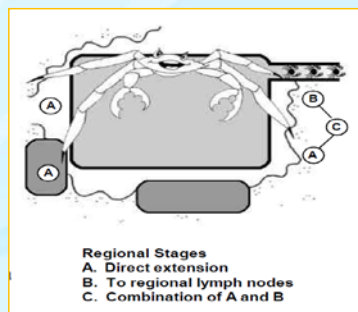
If the documented term is a synonym for a node listed for that site, assign code 3.

If the documented term is NOT a synonym for a listed node, consider it Distant involvement and assign code 7.

All of the skin sites consider in-transit metastasis or satellite nodules more than 2cm from the primary site as regional lymph node involvement. Also for all skin sites when the only information available is a statement that regional lymph nodes are involved, the stage is at least a code 3 (no distant disease is present).

Regional by BOTH Summary Stage Code 4

- ❑ Melanoma involves BOTH
 - Penetration of entire dermis
 - Regional lymph nodes
- ❑ Satellite nodules BOTH
 - ≤2 cm from the primary
 - >2 cm from the primary



Source: SEER Summary Stage Manual - 2000

28

Regional by Both Direct Extension and Regional Lymph Nodes is a code 4. Code 4 is a combination of codes 2 & 3. It may also involve satellite or in transit metastasis described in both codes 2 (2 cm or less from the primary) and 3 (greater than 2cm from the primary).

(No graphic of the skin available).

Regional, NOS Summary Stage Code 5

□ Regional Not Otherwise Specified

- No information to assign:
 - Regional by Direct Extension-Code 2
 - Regional Lymph Nodes only-Code 3
 - Regional to BOTH-Code 4
- Information is limited to “regional disease”

Regional, not otherwise specified is assigned when the only information provided by a physician is “regional disease”.

29



Wait—Before we move on.....

Before we move on.....let’s take a look at the regional lymph nodes for the melanoma skin sites.....

30

Regional Lymph Nodes for Melanoma of the Skin

Primary Site	Regional Lymph Nodes
Head and Neck	Cervical, NOS (for all)
Lip:	Facial, NOS: Buccinator (buccal) Nasolabial
	Mandibular, NOS: Submandibular (submaxillary) Submental
	Parotid, NOS: Infra-auricular Preauricular
Eye/eyelid/canthus:	Facial, NOS: Buccinator(buccal) Nasolabial (continued next slide)

This slide and the next 4 contain the regional lymph nodes for each primary site of the skin. The slides are for your reference for the exercises (for those of you who do not have a copy of the staging manual).

Notice that positive cervical nodes, not otherwise specified, are considered regional lymph nodes for all of the melanomas of skin of the head and neck.

31

Regional Lymph Nodes for Melanoma of the Skin

Primary Site	Regional Lymph Nodes
Head and Neck	Cervical, NOS (for all)
Eye/lid/canthus:	Mandibular, NOS: Submandibular (submaxillary) Submental Parotid, NOS: Infra-auricular
External ear/auditory canal:	Mastoid (post-/retro-auricular) Preauricular
Face, Other: (cheek, chin, forehead, jaw, nose, temple)	Facial, NOS; Buccinator (buccal) Nasolabial (continued next slide)

Continuation of the regional lymph nodes of the head & neck skin areas.....

32

Regional Lymph Nodes for Melanoma of the Skin

Primary Site	Regional Lymph Nodes
Head and Neck	Cervical, NOS (for all)
Face, Other: (cheek, chin, forehead, jaw, nose, temple)	Mandibular, NOS: Submandibular (submaxillary) Submental Parotid, NOS: Infra-auricular Preauricular
Scalp:	Mastoid (post-/retro-auricular) Parotid, NOS Infra-auricular Preauricular Spinal Accessory (posterior cervical)

33

Regional Lymph Nodes for Melanoma of the Skin

Primary Site	Regional Lymph Nodes
Head and Neck	Cervical, NOS (for all)
Neck:	Axillary Mandibular, NOS: Submental Mastoid (post-/retro-auricular) Parotid, NOS: Infra-auricular Preauricular Spinal Accessory (posterior cervical) Supraclavicular (transverse cervical)
Upper trunk:	Axillary Cervical Internal mammary Supraclavicular (transverse cervical)

The regional lymph nodes for the skin of the upper trunk begin on this slide.....

34

Regional Lymph Nodes for Melanoma of the Skin

Primary Site	Regional Lymph Nodes
Lower Trunk:	Superficial inguinal (femoral)
Arm/Shoulder:	Axillary Epitrochlear for hand/forearm Spinal accessory (posterior cervical) for shoulder
Leg/hip:	Popliteal for heel and calf Superficial inguinal (femoral)
Vulva/penis/scrotum:	Deep inguinal, NOS: Node of Cloquet or Rosenmuller (highest deep inguinal) Superficial inguinal (femoral)
All sites:	In-transit metastasis (satellite nodules >2 cm from primary) Regional lymph node(s), NOS

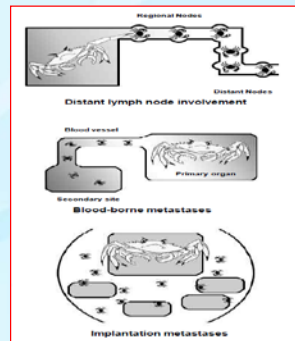
Moving from the head and neck and upper trunk primary melanomas to the skin of the rest of the body.....

Again, those in-transit metastasis (satellite nodules more than 2 cm from the primary) are considered Regional Lymph Node involvement and staged Regional Lymph Nodes, code 3.

35

Distant Summary Stage Code 7

- Distant lymph nodes
- Further contiguous extension:
 - Cartilage
 - Bone
 - Skeletal muscle
- Metastasis
 - Skin or subcutaneous tissue beyond regional lymph nodes
 - Visceral metastasis
 - Other organs



Source: SEER Summary Stage Manual - 2000

Distant melanoma may involve the distant lymph nodes (nodes that are NOT regional) and/or to the underlying cartilage, bone or skeletal muscle.

Skin or subcutaneous tissue beyond the regional lymph nodes is distant spread. Of course melanoma can spread to the visceral organs, the liver, lungs, brain—to any tissue of the body.

36

**Refer to the online manuals regularly and periodically
check the site for updates and/or changes**

<http://seer.cancer.gov/tools/ssm/>



A reminder...always refer to the online manuals regularly to check for updates or changes.

Following are 4 exercises for practical application to stage melanoma of the skin.

37

Exercise 1 – How would you stage this?

History and Physical:

Lesion noted on the right shoulder. Irregular borders, and no ulceration.

Treatment:

Wide excision

Pathology:

Lentigo Maligna skin of the right shoulder

Clark's level I

Stage Case.....Answer on next slide

Exercise 1 – How would you stage this?

History and Physical:

Lesion noted on the right shoulder. Irregular borders, and no ulceration.

Treatment:

Wide excision

Pathology:

Lentigo Maligna skin of the right shoulder

Clark's level I

Answer: Summary Stage In Situ (Code 0) – Lentigo Maligna and Clark's level I indicative of an In Situ Melanoma

Text: Lentigo Maligna, Clark's level I, right shoulder, no ulceration, complete excision

Please note, with in situ melanomas you will not see a Breslow's depth of invasion as there is no invasion.

39

Exercise 2 – How would you stage this?

During a routine physical exam, a fifty one year old female was found to have an ulcerated lesion on the left upper arm highly suspicious for melanoma. Satellite nodules approximately 1.5 cm from the lesion on the upper arm. No axillary nodes palpable and CT Scan did not indicate any lymph node or distal involvement.

She underwent a wide excision of the primary and a biopsy of both satellite nodules.

Pathology:

Clark's level V ulcerated melanoma.

Two satellite nodules – malignant melanoma

Stage Case.....Answer on next slide

40

Exercise 2 – How would you stage this?

During a routine physical exam, a fifty one year old female was found to have an ulcerated lesion on the left upper arm highly suspicious for melanoma. Satellite nodules approximately 1.5 cm from the forearm lesion. No axillary nodes palpable and CT Scan did not indicate any lymph node or distal involvement.

She underwent a wide excision of the primary and a biopsy of both satellite nodules.

Pathology:

Clark's level V ulcerated melanoma.

Two satellite nodules – malignant melanoma

Answer: Summary Stage Regional by Direct Extension (Code 2) – Clark's level V and Satellite nodules equal to or less than 2 cm are assigned Regional by Direct Extension

Text: Ulcerated melanoma Clark's level V and satellite nodules less than 2 cm from primary completely excised. CT Scan negative for any nodal or distant involvement.

Both the Clark's level V and the satellite nodules equal to or less than 2 cm from the primary are criteria for Regional by Direct Extension Stage.

41

Exercise 3 – How would you stage this?

A 70 year old male presented with a nodular appearing dark lesion on the skin of the face, right mandibular area. Palpable nodes in the preauricular and submandibular area. Patients family reports that the patient seems to have bouts of confusion that are increasing with time.

Excisional biopsy confirms a nodular melanoma. Breslow's measurement greater than 1.8 mm. Sentinel lymph node biopsy positive for malignant melanoma, submaxillary.

CT Scan of the brain indicates multiple lesions consistent with malignant melanoma.

Stage Case.....Answer on next slide

42

Exercise 3 – How would you stage this?

A 70 year old male presented with a nodular, ulcerated dark lesion on the skin of the face, right mandibular area. Palpable nodes in the preauricular and submandibular area. Patients family reports that the patient seems to have bouts of confusion that are increasing with time.

Excisional biopsy confirms a nodular melanoma. Breslow's measurement greater than 1.8 mm. Sentinel lymph node biopsy positive for malignant melanoma, submaxillary.

CT Scan of the brain indicates multiple malignant lesions consistent with malignant melanoma.

Answer: Summary Stage Distant (Code 7)—metastases to the brain

Text: CT Scan of the brain consistent with malignant melanoma. Primary was ulcerated, Breslow's 1.8mm and two positive sentinel nodes.

When evidence of distant metastases is documented, there is no need to look any farther. It no longer matters what the Clark's Level, Breslow's or the regional lymph node involvement. The disease has traveled to a distant area—the highest stage possible.

It is important to document the patients positive findings in the text.

43

Exercise 4 – How would you stage this?

A 35 year old female seen for a mole on the left upper thigh. Mole has been present "several years" but recently seems to be enlarging and color is "darkening".

Biopsy: Malignant melanoma.

Wide excision and sentinel nodes:

Malignant melanoma with 2cm radial margins. Breslow's 3mm

Femoral Sentinel nodes (2) positive for malignant melanoma

MRI: enlarged superficial inguinal nodes, no other areas indicate involvement (of melanoma)

Complete resection of femoral nodes, 02 of 06 nodes positive for malignant melanoma.

Patient referred for systemic therapy.

Stage Case.....Answer on next slide

44

Exercise 4 – How would you stage this?

A 35 year old female seen for a mole on the left upper thigh. Mole has been present “several years” but recently seems to be enlarging and color is “darkening”.

Biopsy: Malignant melanoma.

Wide excision and sentinel nodes:

Malignant melanoma with 2cm radial margins. Breslow’s 3mm, Clark’s level V
Femoral Sentinel nodes (2) positive for malignant melanoma

MRI: enlarged superficial inguinal nodes, no other areas indicate involvement (of melanoma)

Complete resection of femoral nodes, 02 of 06 nodes positive for malignant melanoma.
Patient referred for systemic therapy.

Answer: Regional by BOTH direct extension and lymph nodes –(Code 4), Clark’s level V
+ positive regional lymph nodes.

Text: Malignant melanoma, Clark’s level V, Breslow’s 3mm, 2 of 6 nodes positive. MRI-
no other involvement

This case meets the criteria for Regional to BOTH direct extension (Clark’s level V) and to the regional lymph nodes. A Clark’s level V tumor has invaded thru the entire skin into the subcutaneous tissue.

45

Exercise 5 – How would you stage this?

A 41 year old female seen for a routine skin examination. Area noted on the left forearm, dark in places with irregular borders. Area was not noted on last year’s exam.

Excisional Biopsy: Malignant melanoma.

Breslow’s 1.3mm

Clark’s Level III

Margins negative

Patient to return in six months.

Stage Case.....Answer on next slide

46

Exercise 5 – How would you stage this?

A 41 year old female seen for a routine skin examination. Area noted on the left forearm, dark in places with irregular borders. Area was not noted on last year's exam.

Excisional Biopsy: Malignant melanoma.

Breslow's 1.3mm

Clark's Level III

Margins negative

Patient to return in six months.

Answer: Localized stage – Code 1

Text: Breslow's 1.3mm, Clark's Level III with negative margins

If all you have in the pathology report is the Breslow's depth of invasion of 1.3mm (as in this case), the margins are negative and there is no mention of extension, you can stage as localized.

47

The CDC gratefully
acknowledges
Terese Winslow for granting
permission to incorporate her
illustrations into this
presentation.

48



Centers for Disease Control and Prevention
Chamblee Campus, Atlanta GA

49

Presentation created by CDC
For questions, please contact your designated CDC/NPCR Education Training Coordinator:

Donna M. Hansen, CTR
Auditor/Trainer
UC Davis Institute of Population Health
California Cancer Registry
1631 Alhambra Blvd, Suite #200
Sacramento, CA 95816
(916) 731-2543

Email: dhansen@ccr.ca.gov

For more information please contact Centers for Disease Control and Prevention

1600 Clifton Road NE, Atlanta, GA 30333
Telephone, 1-800-CDC-INFO (232-4636)/TTY:1-888-232-6348
E-mail: cdcinfo@cdc.gov Web: www.cdc.gov



50