## Melanoma and mycosis fungoides AJCC staging

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## American Joint Committee on Cancer (AJCC) 8th Ed. - Melanoma Staging

| Clinical staging |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stage 0 | Tis | NO | M0 |  | Pathologic staging (only differs for stage 3) |  |  |  |
| Stage 1A | T1a | N0 | MO |  | 3A | T1a/b, T2a | N1a, N2a | M0 |
| 1B | T1b, T2a | - | - |  | 3B | T0, T1a/b, T2a | N1b/c | - |
| Stage 2A | T2b, T3a | NO | MO |  |  | T1a/b, T2a | N2b | - |
| 2B | T3b, T4a | - | - |  |  | T2b, T3a | N1a-c, N2a/b | - |
| 2 C | T4b | - | - |  | 3C | T0 | N2b/c, N3b/c | - |
| Stage 3 | Any T | $\geqslant \mathrm{N} 1$ | M0 |  |  | T1a/b, T2a/b, T3a | N2c, N3a-c | - |
| Stage 4 | Any T | Any N | M1 |  |  | T3b, T4a | Any N | - |
|  |  |  |  |  |  | T4b | N1a-c, N2a-c | - |
|  |  |  |  |  | 3D | T4b | N3a-c | - |


| Definitions |  |  |
| :---: | :---: | :---: |
| Primary Tumor (T) | Thickness (mm) | Ulceration |
| TX | Primary tumor cannot be assessed |  |
| T0 | No evidence of primary tumor |  |
| Tis | Melanoma in situ |  |
| T1 | $\leqslant 1.0$ | a: Breslow < 0.8 mm w/o ulceration <br> b: Breslow 0.8-1.0 mm w/o ulceration or <br> $\leqslant 1.0 \mathrm{~mm}$ w/ ulceration |
| T2 | 1.1-2.0 | a: w/o ulceration <br> b: w/ ulceration |
| T3 | 2.1-4.0 |  |
| T4 | >4.0 |  |
| Regional Lymph Nodes (N) | Number of regional nodes | Microsatellite instability (MSI)* status, clinically detectable |
| NX | Nodes cannot be assessed |  |
| NO | No regional metastases detected |  |
| N1 | 0-1 node | a: no MSI, clinically occult <br> b: no MSI, clinically detected <br> c: MSI present, 0 nodes |
| N2 | 2-3 nodes | a: no MSI, clinically occult <br> b: no MSI, clinically detected |
|  | 1 node | c: MSI present, detectable or occult |
| N3 | >3 nodes | a: no MSI, all occult <br> b: no MSI, $\geqslant 1$ detected or matted |
|  | >1 node | c: MSI present, detectable or occult |
| Distant Metastasis (M) | Site of metastases | Serum LDH |
| M0 | No distant metastases detected |  |
| M1a-d | (a) Skin/subcutaneous/distant node, (b) lung, (c) other visceral sites, (d) brain | Not assessed |
| M1a-d (0) |  | Normal |
| M1a-d (1) |  | Elevated |

*MSI refers to any satellite, locally recurrent, or in transit lesions.

## Quick tips for melanoma staging:

- $8^{\text {th }}$ Ed omits mitosis status and T1a is $<0.8 \mathrm{~mm}$ rather than $\leqslant 1.0 \mathrm{~mm}$
- Clinical and pathologic staging (TNM) is the same except for stage 3
- Nodal involvement $\rightarrow$ at least stage 3
- Distant metastases $\rightarrow$ stage 4


## Melanoma and mycosis fungoides AJCC staging (cont.)

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Mycosis fungoides staging

|  | Staging Classification |  |  |
| ---: | :--- | :--- | :--- |
| Stage 1A | T1 | N0 | M0 |
| 1B | T2 | N0 | M0 |
| Stage 2A | T1-2 | N1 | M0 |
| 2B | T3 | N0-1 | M0 |
| Stage 3A | T4 | N0 | M0 |
| 3B | T4 | N1 | M0 |
| Stage 4A | T1-4 | N0-3 | M0 |
| 4B | T1-4 | N0-3 | M1 |


| Definitions |  |
| :--- | :--- |
| Skin Tumor (T) |  |
| T1 | Limited patch/plaque (involving $<10 \%$ of total skin surface) |
| T2 | Generalized patch/plaque (involving $>10 \%$ of total skin surface) |
| T3 | Tumor(s) |
| T4 | Erythroderma ( $>90 \%$ BSA) |

Regional lymph node (N)

| N0 | No enlarged lymph nodes |
| :--- | :--- |
| N1 | Enlarged lymph nodes, histologically uninvolved |
| N2 | Enlarged lymph nodes, histologically involved (nodal architecture unaffected) |
| N3 | Enlarged lymph nodes, histologically involved (nodal architecture effaced) |

## Visceral involvement (M)

| M0 | No visceral involvement |
| :--- | :--- |
| M1 | Visceral involvement |
| Blood (B)* |  |
| B0 | No circulating atypical (Sezary) cells or <5\% of lymphocytes |
| B1 | Low blood tumor burden (>5\% of lymphocytes are Sezary cells, but not B2) |
| B2 | High blood tumor burden (1000/mL Sezary cells and positive clone) |

* Is not part of stage classification for AJCC (useful in ACS and EORTC)


## Quick tips for MF staging:

- Nodal involvement $\rightarrow$ at least stage IIA
- Cutaneous tumors $\rightarrow$ at least stage IIB
- Erythroderma $\rightarrow$ at least stage IIIA
- Visceral involvement $\rightarrow$ stage IVB


## References:

Amin, Mahul, et al. AJCC Cancer Staging Manual, 8th Ed. Springer International Publishing, 2017.

