AJCC 8th Edition Chapter 1 Principles of Cancer Staging:

Node Status Not Required in Rare Circumstances

Clinical Staging, cN Category

For some cancer sites in which lymph node involvement is rare, patients whose nodal status is not determined to be positive for tumor should be designated as cN0. These circumstances are identified in specific disease chapters for these sites; NX is not listed as a category.

Example: Bone and soft tissue sarcoma may use cN0 to assign the clinical stage group, that is, cT1 cN0 cM0.

Pathological Staging, pN Category

For some cancer sites in which lymph node involvement is rare, patients whose nodal status is not determined to be positive for tumor should be designated as cN0. These circumstances are identified in specific disease site chapters for these sites; NX may not be listed as a category. The assignment of cN0 will ensure it is not confused with a case in which the nodes were microscopically proven to not contain tumor, that is, pN0.

Examples: For bone and soft tissue sarcoma, cN0 may be used to assign the pathological stage group—that is, pT1 cN0 cM0. For melanoma, cN0 may be used to assign a pathological stage group for T1 melanoma.

All chapter exceptions where cN0 may be used for cN & pN category

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Limited exception where cN0 may be used for pN category

- 47 Melanoma: only used for pT1

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Citations

1. Principles of Cancer Staging[1]

- Clinical Classification – Clinical N (N or cN)
  - Example: Bone and soft tissue sarcoma may use cN0 to assign the clinical stage group, that is, cT1 cN0 cM0.
- Pathological Classification – Pathological N (pN)
  - Examples: For bone and soft tissue sarcoma, cN0 may be used to assign the pathological stage group – that is, pT1 cN0 cM0. For melanoma, cN0 may be used to assign a pathological stage group for T1 melanoma.

38. Bone[2]

- Anatomy – Regional Lymph Nodes
  - Regional lymph node metastases from primary bone tumors are extremely rare.
- Clinical Classification – Imaging
  - Metastatic disease should be evaluated for and described. In general, lymph node metastasis from a bone sarcoma is uncommon, and a negative clinical examination for lymphadenopathy is sufficient to warrant a classification of N0.
- Pathological Classification
  - Pathological staging pTNM includes pathological data obtained from examination of a resected specimen, histopathologic type and grade, regional lymph nodes as appropriate, or distant metastasis. Because regional lymph node involvement from bone tumors is rare, the pathological stage grouping includes any of the following combinations: pT pN c/pM pG, pT cN c/pM pG, or cT cN pM1.
- Definition of Regional Lymph Node (N)
  - Because of the rarity of lymph node involvement in bone sarcomas, the designation NX may not be appropriate, and cases should be considered N0vunless clinical node involvement clearly is evident.

40. Soft Tissue Sarcoma of the Head and Neck[3]

- Anatomy – Regional Lymph Nodes
  - Involvement of regional lymph nodes is uncommon for soft tissue sarcomas, except for certain subtypes, in particular epithelioid sarcoma, clear cell sarcoma, angiosarcoma, and rhabdomyosarcoma.
- Clinical Classification – TNM Categories of Tumor Staging and Imaging
  - Regional lymph nodes are considered suspicious for tumor involvement if enlarged, rounded, or necrotic, or if the normal fatty hilum of the node is replaced by soft tissue.
  - For sarcomas with a particular propensity to metastasize to lymph nodes, scintigraphic sentinel node mapping may be performed to guide subsequent lymph node sampling.
- Pathological Classification
  - Pathological (pTNMG) staging consists of the removal and pathological evaluation of the primary tumor and clinical/radiologic evaluation for regional and distant metastases.
- Definition of Regional Lymph Nodes (N)
  - N0 No regional lymph node metastases or unknown lymph node status

41. Soft Tissue Sarcoma of the Trunk and Extremities[4]

- Anatomy – Regional Lymph Nodes
  - Involvement of regional lymph nodes by soft tissue sarcomas is uncommon for soft tissue sarcomas, except for certain subtypes, including epithelioid sarcoma, clear cell sarcoma, and alveolar and embryonal rhabdomyosarcoma.
- Clinical Classification – TNM Categories of Tumor Staging and Nodal Disease and Imaging
  - Regional nodal metastases are uncommon in most histologic types of extremity soft tissue sarcoma. Nodes are considered suspicious for tumor involvement if enlarged, rounded, or necrotic, or if the normal fatty hilum of the node is replaced by soft tissue.
  - Nodal involvement is rare in adult soft tissue sarcomas. In the assignment of stage group, patients whose nodal status is not determined to be positive for tumor, either clinically or pathologically,

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should be designed as N0. The term *NX* should not be used. The designation for the clinical stage is cN0. If microscopically determined for the pathological stage, it would be designated as pN0. If clinically determined by physical examination or imaging for the pathological stage, it would be designated as cN0 and not pNX.
    - For sarcomas with a particular propensity to metastasize to lymph nodes, scintigraphic sentinel node mapping may be performed to guide subsequent lymph node sampling.
- Pathological Classification
    - Pathological (pTNMG) staging consists of the removal and pathological evaluation of the primary tumor and clinical/radiologic evaluation for regional and distant metastases.
- Definition of Regional Lymph Nodes (N)
    - N0 No regional lymph node metastases or unknown lymph node status

42. Soft Tissue Sarcoma of the Abdomen and Thoracic Visceral Organs[5]

- Anatomy – Regional Lymph Nodes
    - Involvement of regional lymph nodes by soft tissue sarcomas is uncommon in adults. Specific histologies in which regional lymph node metastatic disease is most commonly observed include alveolar rhabdomyosarcoma, embryonal rhabdomyosarcoma, epithelioid sarcoma, and angiosarcoma.
- Definition of Regional Lymph Nodes (N)
    - N0 No regional lymph node metastases or unknown lymph node status

43. Gastrointestinal Stromal Tumor[6]

- Anatomy – Regional Lymph Nodes
    - Nodal metastasis is extremely rare in GIST, except in SDH-deficient GISTs, which tend to be less aggressive than most other GISTs, despite nodal involvement.
- Definition of Regional Lymph Nodes (N)
    - N0 No regional lymph node metastases or unknown lymph node status

44. Soft Tissue Sarcoma of the Retroperitoneum[7]

- Anatomy – Regional Lymph Nodes
    - Nodal metastases are rare for sarcomas, particularly so for lesions in this anatomic location. When they occur, they most commonly are found in the para-aortic and intestinal mesenteric regions.
- Definition of Regional Lymph Nodes (N)
    - N0 No regional lymph node metastases or unknown lymph node status

53. Corpus Uteri Carcinoma and Carcinosarcoma[8]

- Pathological Classification
    - FIGO uses surgical/pathological staging for corpus uteri cancer.
    - The presence of carcinoma in the regional lymph nodes is a clinically critical prognostic variable. Multiple studies confirmed the inaccuracy of clinical assessment of regional nodal metastasis in many anatomic sites. For this reason, surgical/pathological assessment of the regional lymph nodes is advocated for all patients with corpus uteri cancer; this is also the recommendation of FIGO.
    - For pN, histologic examination of regional lymphadenectomy specimens ordinarily includes six or more lymph nodes. For TNM staging, cases with fewer than six resected nodes should be classified using the TNM pathological classification based on the status of those nodes (e.g., pN0; pN1) according to the general rules of TNM. The number of resected and positive nodes should be recorded (note that FIGO classifies cases with fewer than six nodes resected and negative as pNX).
    - The pT, pN, and c/pM categories correspond to the T, N, and M categories and are used to designate cases in which adequate pathological specimens are available for accurate stage groupings. If the surgical–pathological findings are insufficient, the clinical cT, cN, c/pM categories should be used on the basis of clinical evaluation.

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54. Corpus Uteri Sarcoma[9]

- Pathological Classification
    - As with endometrial carcinoma, FIGO uses surgical/pathological staging for uterine sarcoma.
    - As in endometrial carcinoma, for TNM staging, cases with fewer than six resected nodes should be classified using the TNM pathological classification based on the status of those nodes (e.g., pN0; pN1) according to the general rules of TNM. The number of resected and positive nodes should be recorded (note that FIGO classifies cases with fewer than six nodes resected as pNX).
    - The pT, pN, and c/pM categories correspond to the T, N, and M categories and are used to designate cases in which adequate pathological specimens are available for accurate stage groupings. When there are insufficient surgical/pathological findings, the clinical cT, cN, and c/pM categories should be used on the basis of clinical evaluation.

67. Uveal Melanoma[10]

- Anatomy – Regional Lymph Nodes
    - In the rare event that uveal melanoma metastasizes to the regional lymph nodes, it occurs after extraocular spread and invasion of conjunctival or adnexal lymphatics. This category consequently applies only to uveal melanomas with anterior extrascleral extension.
- Clinical Classification – Metastases
    - At the time of diagnosis of the intraocular tumor, lymph node metastases are found in fewer than 1% of patients and systemic metastases in only 2–3% of patients.
- Pathological Classification
    - Regional lymphadenectomy ordinarily includes six or more regional lymph nodes. Because of the rarity of regional lymph node metastasis, sentinel lymph node biopsy is not practiced.

68. Retinoblastoma[11]

- Anatomy – Regional Lymph Nodes
    - There are no known intraocular lymphatics; this category of staging applies only to extraocular extension involving ocular adnexal tissues with lymphatic supply (e.g., conjunctiva). The regional lymph nodes that might be involved with extraocular retinoblastoma are the preauricular (parotid), submandibular, and cervical nodes (Fig. 68.3).
- Clinical Classification
    - If palpable preauricular lymph nodes are present, we suggest imaging the regions of the submandibular and cervical lymph nodes in an attempt to detect the full extent of lymphvnode involvement.
- Pathological Classification
    - Palpable lymph nodes require fine-needle aspiration biopsy or open biopsy to confirm the presence of malignant cells.

47. Melanoma[12]

- ***Note: cN0 may be used to assign a pathological stage group [only] for T1 melanoma[1]***
- Definition of Regional Lymph Node (N)
    - Exception: pathological N category is not required for T1 melanomas, use cN.
- AJCC Prognostic Stage Groups – Pathological (pTNM)
    - Pathological Stage 0 (melanoma *in situ*) and T1 do not require pathological evaluation of lymph nodes to complete pathological staging; use cN information to assign their pathological stage.

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