



AJCC

American Joint Committee on Cancer

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## ***In Situ* Neoplasia – AJCC Cancer Staging Manual 8<sup>th</sup> Edition**

AJCC is announcing a change in staging rules for the *AJCC Cancer Staging Manual, Eighth Edition* effective with cases diagnosed on or after January 1, 2018, in the assignment of the T category for *in situ* neoplasia, carcinoma *in situ* and melanoma *in situ*.

**Starting with the 8<sup>th</sup> Edition in 2018, the clinical T category will now be cTis.**

- This rule change for the 8th Edition does not affect cases staged with previous editions prior to 2018.
- Starting in 2018 for the 8th Edition, other valid T and N categories with the appropriate c and p prefix will be introduced based on 8th Edition rules.

### **Rationale**

The decision to change the rules occurred after thoughtful deliberation by many physicians. The main reason for the previous pTis was to emphasize the need for microscopic or histologic evidence of *in situ* carcinoma. The diagnosis of carcinoma *in situ* can never be made on imaging alone.

It was decided to change the clinical T category to cTis, indicating it was a diagnosis made on a diagnostic core needle or incisional biopsy and not based on complete examination of a surgical resection specimen. The pathological T category based on the surgical resection specimen will be pTis. There will now be separate designations, cTis and pTis, indicating the timeframe and type of specimen. During the clinical staging classification, all diagnostic biopsies will be cT regardless of whether the microscopic evidence shows an *in situ* or an invasive cancer, e.g., cTis, cT1a.

This differentiation is especially important when the resection specimen shows invasive tumor. Use of this approach will mitigate potential confusion regarding the specimen used for the T category. In past editions, pTis could be based on a diagnostic biopsy or could be based on the resection specimen, depending on whether it was the clinical stage T category or the pathological stage T category. Especially if the diagnostic biopsy showed carcinoma *in situ*, pTis, and the resection specimen showed invasive carcinoma, pT1a.

### **Registry Data Conversion**

**Registry data underwent a conversion in 2016 to change all *in situ* T categories to pTis.**

- This is correct for all versions of AJCC, including 7<sup>th</sup> edition, for cases diagnosed through 2017.
- Data for cases diagnosed prior to 2018 will not change based on the new 8th Edition rules.
- Data abstracted using all previous versions of AJCC should only have pTis and **not** cTis.
- The conversion in 2016 only dealt with the *in situ* staging and the cM/pM issues.

### **Historical Information**

Previous editions of the AJCC Cancer Staging Manuals were either silent on the issue, or provided clear instructions to assign pTis for the clinical stage T category.

Fifth Edition: The correct classification for *in situ* lesions is pTis cN0 cM0, clinical stage group 0.

Sixth Edition: Carcinoma *in situ* (CIS) is an exception to the stage grouping guidelines. ... Therefore, pTis, cN0, cM0, clinical stage group 0 is appropriate.

Seventh Edition: Carcinoma *in situ* (CIS) is an exception to the stage grouping guidelines. ... Therefore, pTis cN0 cM0 should be reported as both clinical and pathological stage 0.

(Note: For the first time, a pathological stage 0 was permitted for carcinoma *in situ*.)

## 8<sup>th</sup> Edition Chapter 1: Principles of Cancer Staging

Clinical T:

- *In situ* neoplasia identified during the diagnostic workup on a core or incisional biopsy is assigned cTis.

Pathological T:

- *In situ* neoplasia identified from a surgical resection, as specified in the disease site pathological criteria, is assigned pTis.
- *In situ* neoplasia identified microscopically during the diagnostic workup may be used to assign the pathological stage pTis if the patient had a surgical resection and no residual tumor was identified.

Clinical Stage 0:

- *In situ* neoplasia identified microscopically during the diagnostic workup is assigned as cTis cN0 cM0 clinical Stage 0.

Pathological Stage 0:

- *In situ* neoplasia is an exception to the stage grouping guidelines that otherwise require regional lymph node evaluation for pathological classification. By definition, *in situ* neoplasia has not involved any structures in the primary organ that would allow tumor cells to spread to regional nodes or distant sites.
- The primary tumor surgical resection criteria for pathological stage must be met in order to assign pathological Stage 0.
- Lymph node microscopic assessment is not necessary to assign pathological Stage 0 for *in situ* neoplasia; for example, pTis cN0 cM0 is staged as pathological Stage 0.

## Summary

The following rules should be applied for carcinoma *in situ* depending on when the case was diagnosed. This is based on a diagnostic biopsy with microscopic evidence of *in situ* for the clinical stage, and the appropriate surgical resection performed for the pathological stage.

- Cases diagnosed 2010 – 2017, Seventh Edition:
  - pTis cN0 cM0 clinical stage 0
  - pTis cN0 cM0 pathological stage 0
- Cases diagnosed 2018 – , Eighth Edition:
  - cTis cN0 cM0 clinical stage 0
  - pTis cN0 cM0 pathological stage 0