Nomenclature Quiz: Cancer
by Laura King, MA, ELS

Directions: Edit the following sentences based on your understanding of section 15.2 and chapter 11 of the AMA Manual of Style.

1. A patient with long-standing gastroesophageal reflux disease and Barrett metaplasia had a synchronous T1, N0, M0 adenocarcinoma of the distal esophagus.

   ANSWER:
   A patient with long-standing gastroesophageal reflux disease and Barrett metaplasia had a synchronous T1N0M0 adenocarcinoma of the distal esophagus.

   Editor’s Note: In the TNM staging system, the T stands for tumor (size, extent, or depth of penetration of the primary tumor); N, node (absence or presence and extent of regional lymph node involvement); and M, metastasis (absence or presence of distant metastasis). The convention is to set the capital letter followed by arabic numerals all closed up (§15.2.2, The TNM Staging System, pp 546-549 in print).

2. In patients undergoing concurrent chemoradiotherapy, improved swallowing function is associated with advanced T stage.

   ANSWER:
   In patients undergoing concurrent chemoradiotherapy, improved swallowing function is associated with advanced T category.

   Editor’s Note: The term T category is preferred to T stage (§15.2.2, The TNM Staging System, pp 546-549 in print).
3. Thirty-six percent of patients with stage III disease and 11% of those with stage IV disease showed moderate to severe impairment on their Swallowing Performance Status Scale score, whereas 64% of stage III and 89% of stage IV patients showed no or mild impairment ($P = .03$).

**ANSWER:**
Thirty-six percent of patients with stage III disease and 11% of those with stage IV disease showed moderate to severe impairment on their Swallowing Performance Status Scale score, whereas 64% of patients with stage III disease and 89% of patients with stage IV disease showed no or mild impairment ($P = .03$).

*Editor’s Note:* Patients are not classified as stage III and IV, their diseases or tumors are. Rephrase such terms as stage III patient to patient with stage III disease (or tumors) (§15.2.2, The TNM Staging System, pp 546-549 in print).

4. Most N1 patients had tumors that were stage III (14.3%) or stage IV (85.7%) and had undergone postoperative radiotherapy.

**ANSWER:**
Most patients with N1 lesions had tumors that were stage III (14.3%) or stage IV (85.7%) and had undergone postoperative radiotherapy.

*Editor’s Note:* The patients are not classified as N1, their lesions are. Rephrase to patients with N1 lesions (§15.2.2, The TNM Staging System, pp 546-549 in print).

5. A total of 151 women surgically treated for early-stage breast cancer (TNM stages 0-2) were assessed at least 1 year after their axillary lymph node dissection.

**ANSWER:**
A total of 151 women surgically treated for early-stage breast cancer (TNM stages 0-II) were assessed at least 1 year after their axillary lymph node dissection.

*Editor’s Note:* Cancer stages are expressed with capital roman numerals (with the exception of zero) (§15.2.1, Cancer Stage, p 546 in print).
6. One hundred fifty-nine deaths occurred in patients with multiple endocrine neoplasia (MEN), 46 in individuals in whom MEN-1 was “highly probable.”

**ANSWER:**
One hundred fifty-nine deaths occurred in patients with multiple endocrine neoplasia (MEN), 46 in individuals in whom MEN 1 was “highly probable.”

*Editor’s Note:* Abbreviations for types of multiple endocrine neoplasia (MEN) feature arabic numerals and a space (eg, MEN 1, MEN 2A, MEN 3) ([§15.2.4](#), *Multiple Endocrine Neoplasia, p 551 in print)*.

7. The study examined 76 patients (median age, 66.5 years) with colorectal cancer (Dukes stage 1, n=9; Dukes 2, n=30; Dukes 3, n=25; and Dukes 4, n=12) whose diagnosis was made between 1988 and 1991.

**ANSWER:**
The study examined 76 patients (median age, 66.5 years) with colorectal cancer (Dukes stage A, n=9; Dukes B, n=30; Dukes C, n=25; and Dukes D, n=12) whose diagnosis was made between 1988 and 1991.

*Editor’s Note:* Dukes stages are expressed with letters ([§15.2.2](#), *The TNM Staging System, pp 546-549 in print)*.

8. From March 1977 through February 1979, only patients with a highly differentiated tumor (TNM grade I) were included in the untreated group, whereas from March 1979 through the end of the recruitment period, patients younger than 75 years at diagnosis and with moderately or poorly differentiated tumors (TNM grades II-III) were randomly allocated to receive local radiation (10 patients) or no treatment.

**ANSWER:**
From March 1977 through February 1979, only patients with a highly differentiated tumor (TNM grade 1) were included in the untreated group, whereas from March 1979 through the end of the recruitment period, patients younger than 75 years at diagnosis and with moderately or poorly differentiated tumors (TNM grades 2-3) were randomly allocated to receive local radiation (10 patients) or no treatment.

*Editor’s Note:* Histologic grades are expressed with arabic numerals ([§15.2.1](#), *Cancer Stage, p 546 in print)*.
9. Cyclin D1 is a key regulatory protein of the cell cycle, promoting the transition through the restriction point in the G1 phase beyond which the cell is committed to divide.

**ANSWER:**
Cyclin D1 is a key regulatory protein of the cell cycle, promoting the transition through the restriction point in the G1 phase beyond which the cell is committed to divide.

*Editor’s Note:* Growths or gaps are expressed with subscript arabic numerals (§15.2.5, Molecular Cancer Terminology, p 551 in print).

10. The study outcomes included colposcopy referrals, CIN types (eg, CIN1 and CIN2 or CIN3), lifetime cancer risk, and quality-adjusted life expectancy.

**ANSWER:**
The study outcomes included colposcopy referrals, cervical intraepithelial neoplasia (CIN) types (eg, CIN 1 and CIN 2 or CIN 3), lifetime cancer risk, and quality-adjusted life expectancy.

*Editor’s Note:* CIN should be expanded as cervical intraepithelial neoplasia at first mention and the grades expressed with a space between the abbreviation and the arabic numeral (eg, CIN 1) (§15.2.3, Bethesda System, pp 549-551 in print).

11. In the patients who did not undergo transplantation, pathologic TNM staging at primary resection was identified as an independent prognostic factor affecting overall survival.

**ANSWER:**
In the patients who did not undergo transplantation, pTNM staging at primary resection was identified as an independent prognostic factor affecting overall survival.

*Editor’s Note:* Lowercase prefixes to T, N, M, and other symbols may be used to indicate the mode of determining criteria for tumor description and staging or other attributes (eg, a for autopsy, c for clinical, p for pathologic, r for recurrent tumor, and y for classification during or after multimodality treatment) (§15.2.2, The TNM Staging System, pp 546-549 in print).
12. The study revealed that the most common underlying malignancies were non-Hodgkin lymphoma and chronic lymphocytic leukemia.

**ANSWER:**
The study revealed that the most common underlying malignant neoplasms were non-Hodgkin lymphoma and chronic lymphocytic leukemia.

*Editor’s Note:* When referring to a specific tumor, use malignant neoplasm or malignant tumor rather than malignancy. Malignancy refers to the quality of being malignant (§11.1, Correct and Preferred Usage of Common Words and Phrases, pp 381-405 in print).

13. The investigators retrospectively investigated the effect of the hemoglobin level before chemoradiotherapy on T4 and/or M1 (lymph node) squamous cell carcinoma of the esophagus.

**ANSWER:**
The investigators retrospectively investigated the effect of the hemoglobin level before chemoradiotherapy on T4 and/or M1 (LYM) squamous cell carcinoma of the esophagus.

*Editor’s Note:* The site of metastasis may be indicated with parenthetic 3-letter abbreviations (§15.2.2, The TNM Staging System, pp 546-549 in print).

14. Despite 15 of 36 clinically cured patients (42%) being classified as having FIGO (International Federation of Gynecology and Obstetrics) stage IV cancer (13 patients with stage IVA cancer and 2 patients with stage IVB cancer), the observed overall survival of the clinically cured group at 5, 10, and 15 years was 100%, 100%, and 79%, respectively.

**ANSWER:**
Despite 15 of 36 clinically cured patients (42%) being classified as having FIGO (International Federation of Gynecology and Obstetrics) stage IV cancer (13 patients with stage IVA cancer and 2 patients with stage IVB cancer), the observed overall survival of the clinically cured group at 5, 10, and 15 years was 100%, 100%, and 79%, respectively.

*Editor’s Note:* Letter and numerical suffixes, usually set on the line, may be added to subdivide individual cancer stages. In the FIGO staging system (and most other cancer staging systems), these letters are capitalized (§15.2.1, Cancer Stage, p 546; §15.2.2, The TNM Staging System, pp 546-549 in print).
15. Micrometastases greater than 0.2 mm, with no focus greater than 2.0 mm, were classified as pN1mi; however, when no metastatic cluster measured greater than 0.2 mm, the micrometastases were classified as pN0(i+).

**ANSWER:**
Micrometastases greater than 0.2 mm, with no focus greater than 2.0 mm, were classified as pN1mi; however, when no metastatic cluster measured greater than 0.2 mm, the micrometastases were classified as pN0(i+).

*Editor’s Note: The T, N, M, and other symbols used in cancer staging may be followed by suffixes in addition to the common X, 0, and numerals, which further specify qualities such as size, invasiveness, and extent of metastasis (mi indicates micrometastasis and i indicates isolated tumor cells). These suffixes should be set in lowercase letters on the line (§15.2.2, The TNM Staging System, pp 546-549 in print).*