



CAP Cancer Protocols: Improving Patient Care Through Improved Cancer Reporting

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On October 9, 2009, the College of American Pathologists (CAP) Cancer Committee launched 55 updated Cancer Protocols, with 10 additional new Cancer Protocols slated for release in early 2010. Each Cancer Protocol has been significantly revised and streamlined by a multidisciplinary team of experts to reflect the current best practices in cancer care.

The Cancer Protocols have become an integral part of routine pathology practice for many institutions. Through standardization of pathology reporting, the Protocols encourage consistency between individuals and institutions, facilitate comprehensive inclusion of all important data elements, reduce ambiguity in terminology, and allow data to be more easily communicated, compared, and retrieved, which fosters research efforts.

What is a Cancer Protocol?

- A Cancer Protocol is a document created by a multidisciplinary team of expert medical professionals (led by members of the CAP Cancer Committee) to facilitate comprehensive pathology reporting of a cancer specimen.
- A Cancer Protocol is composed of two parts: 1) a cancer checklist and 2) accompanying explanatory notes that provide brief educational material to facilitate accurate completion of the checklist. Included in each checklist are “required” elements that are scientifically validated as necessary for optimal patient care as well as “optional” elements that may be clinically important but are not yet validated or regularly used in patient management.
- Sixty-five Cancer Protocols exist, one for every major tumor site or tumor type. Although most Protocols are designed for resection specimens, some exist for biopsies (eg, prostate, soft tissue, bone marrow).
- Cancer Protocols are provided by the CAP at no charge, and are available at www.cap.org/cancerprotocols.

The Need for Cancer Protocols

The amount of information pathologists provide in their reports on cancer resection specimens has dramatically increased in recent years, such that pathologists may be more aptly referred to as “diagnostic oncologists,” a term that perhaps better highlights their integral role in the multidisciplinary care of patients with cancer. The expanded role of pathologists has paralleled the rapid expansion in scientific knowledge about prognostic and predictive factors that may be derived from a cancer resection specimen. For instance, where once a typical surgical pathology report for a mastectomy specimen would specify a diagnosis of “mammary carcinoma” with tumor size and margin status provided, today a total of at least 16 different elements are required for comprehensive reporting of such specimens.¹

Each of these required elements provides important data that is then used by surgeons, oncologists, radiation oncologists, and other health care providers to determine the patient’s prognosis and to

optimize the care of the patient. With the continued advances in molecular diagnostics together with the progress toward personalized medicine, it is expected that the amount of information that pathologists will be asked to provide about cancer resection specimens will continue to increase. The Cancer Protocols were created to assist pathologists in meeting this challenge.

Creation of the Cancer Protocols

Research conducted in the 1990s demonstrated that pathologists frequently omitted elements in their diagnostic reports that were recommended for optimal patient care.²⁻⁴ In response, the CAP Cancer Committee developed tumor site-specific checklists for pathologists to use when reporting cancer diagnoses. Since their original inception, these checklists have been revised and modified several times.

In 2005, the Cancer Committee took an additional step forward by creating 11 Cancer Protocol Review Panels, one for each major area of cancer care. These multidisciplinary teams revised the Cancer Protocols to incorporate all scientifically validated data elements for each cancer type, and several new Protocols were added. In addition, the revised Protocols incorporate the new staging parameters set forth by the seventh edition of the *American Joint Committee on Cancer (AJCC) Staging Manual*⁵ as well as the most recent World Health Organization (WHO) tumor classification system.

The Cancer Protocols in Practice

The College of American Pathologists requires that all CAP-accredited laboratories include the required elements from the Cancer Protocols to achieve laboratory accreditation as part of their Laboratory Accreditation Program. Aside from the CAP, several other major organizations have recognized the importance of the Cancer Protocols. Beginning in 2004, the American College of Surgeons' Commission on Cancer (CoC) mandated that at least 90% of all pathology reports from cancer specimens include all required elements from the CAP Cancer Protocols to achieve CoC program accreditation. In 2009 the Canadian Association of Pathologists unanimously endorsed the adoption of the CAP Cancer Protocols, and there has been interest from other international pathology organizations.

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References

1. Lester SC, Bose S, Chen YY, et al. Protocol for the examination of specimens from patients with ductal carcinoma in situ of the breast. *Arch Pathol Lab Med.* 2009; 133:15-25.
2. Gephardt GN, Baker PB. Lung carcinoma surgical pathology report adequacy: a College of American Pathologists Q-Probes study of over 8300 cases from 464 institutions. *Arch Pathol Lab Med.* 1996;120:922-927.
3. Gephardt GN, Baker PB. Interinstitutional comparison of bladder carcinoma surgical pathology report adequacy: a College of American Pathologists Q-Probes study of 7234 bladder biopsies and curettings in 268 institutions. *Arch Pathol Lab Med.* 1995;119:681-685.
4. Zarbo RJ. Interinstitutional assessment of colorectal carcinoma surgical pathology report adequacy: a College of American Pathologists Q-Probes study of practice patterns from 532 laboratories and 15940 reports. *Arch Pathol Lab Med.* 1992;116:1113-1119.
5. Edge SB, Byrd DR, Carducci MA, Compton CC, eds. 7th ed. New York, NY: Springer:2009.