Why Cancer Staging?

JL BENEDET and S PECORELLI

The major task faced by a clinician having made a diagnosis of cancer is to determine the most effective therapy and formulate a prognosis for the patient. In order to optimally manage a cancer, both the extent of the disease and the knowledge of its biology are essential. The extent of the disease is generally expressed in terms of its stage. The major purpose of staging that has been agreed upon internationally is to offer a classification of a cancer's extent so as to provide a method of conveying ones clinical experience to others for the comparison of treatment methods without confusion or ambiguity.

Cancer staging is central to the modern management of cancer patients. Cancer is also a biologic continuum and a dynamic process, which is artificially compartmentalized by staging systems. It is clear, however, that the phases or sub-stages must have clinical relevance. Cancer staging systems should also be evidence-based and they should be user friendly. Staging systems need to be based on the best available knowledge at hand and this implies that the changes will occur over time based upon the development or the acquisition of new knowledge.

It also follows that the acquisition of this knowledge is facilitated by the use of staging system insofar as staging will help with knowledge creation by facilitating clinical research, producing new data on similar groups of patients and also by integrating this new data about similar patients from diverse sources. Staging also helps knowledge dissemination by providing a common international language for information sharing and facilitates the teaching of both new and established health care workers.

Gynecologists have a long and proud tradition of using staging systems for female cancers, dating back to the League of Nations staging system for cervical cancer, first published in 1920. In 1954 FIGO assumed the patronage of the Annual Report on the Treatment of Gynecological Cancer. With it also came the responsibility for overseeing the staging of gynecological cancers, which were at the heart of the Annual Report data and information system. Since that time the FIGO Oncology Committee has made several modifications to the various staging systems for gynecological cancer, most notably those for cervix and endometrial cancer. 1954 also saw the UICC set up a committee on clinical stage classification and applied statistics, which had as its aim the extension of the general technique of classification of cancer at all sites by anatomical extent of the disease using the TNM system.

The FIGO system of classification was originally based on clinical examination, essentially of the anatomical extent of disease. Over the years all staging systems for gynecological cancers, with the exception of cervical cancer and gestational trophoblastic neoplasia, have moved from a clinical basis to one of a surgical pathological nature.

The classification system and stage grouping, once established, must remain unchanged in medical records. Clinical stage is essential to select and evaluate therapy, while the pathological stage provides the most precise data to estimate prognosis and calculate end results. The FIGO and TNM classifications are virtually identical. The TNM Prognostic Factor Project Committee has graciously agreed to defer to all questions regarding staging of gynecological cancer to the FIGO Committee on Gynecologic Oncology.

In conclusion, any good staging system must have three basic characteristics. It must be valid, reliable, and above all, it must be practical. Validity means that the staging system must allow for the creation of groups of cases, that experience similar outcomes at the same time reflecting a full range of possible presentations for each type of cancer. Also over time, the system in order to retain its validity must be flexible so that it can adapt to important changes in medical care.

A reliable staging system should ensure that identical cases would always be assigned to the same stage category. It should be unambiguous; it should be based as far as possible on measurement quantities that have been evaluated objectively. The system should also not be subject to frequent changes until sufficient data and information is obtained to warrant such changes.

Finally, a practical staging system must be suitable for day to day use in a wide range of clinical environments and must not require diagnostic procedures that are not readily available to most practitioners or extraordinary expertise or knowledge regarding a particular malignancy.

The staging classification is reported at the beginning of each tumor site section, along with rules and recommendations.

Correspondence to: FIGO Annual Report Editorial Office, European Institute of Oncology, via Ripamonti 435, 20141 Milan, Italy
fax: +39-0257489872, e-mail: figo@ieo.it