actual time that is measured by DFS, Wee et al. (4) further state that, "[t]he starting point for DFS was the date of random assignment, and the terminating point was the date when a relapse first occurred or, in the case of persistent disease and other causes of deaths."

Where data establish that a drug results in DFS of several years, the question arises whether it can be concluded that the patient has actually been cured. Commentary from Pui (5) provides the following perspective to this issue. Where a drug results in DFS of 3 years in about 90% of the study subjects, it is reasonable to require a follow-up time of several more years to establish that a cure had been effected.

II. DIFFERENCE BETWEEN DFS AND PFS

Where a patient's cancer is completely removed by surgery, as part of the clinical study protocol, the physician may wonder whether PFS or DFS is the better endpoint to use. In this situation, these two endpoints are likely to be identical, since immediately after surgery, all subjects are considered to be disease-free, and all subjects are in a state where the physician is awaiting the moment when progression is detected (6).

But PFS has a different meaning from DFS. Usually, the endpoint of PFS is used in the context of advanced disease, that is, when the primary treatment failed to lead to complete remission, when tumors still linger, and where these tumors are destined to progress (7). PFS implies that detectable disease was present at baseline, whereas DFS (or the endpoint of relapse-free survival) have traditionally been used for patients without evidence of disease at baseline (8). Both terms enable the investigator to mark the time from intervention until detectable worsening of the disease. Published reports of PFS describe patients with metastatic disease, whereas published reports of DFS are likely to focus on early-stage patients (9).

Disease-free survival is the usual primary endpoint of adjuvant breast cancer trials, since it is considered a good surrogate for the ultimate endpoint, overall survival (10). In breast cancer, DFS is composed of distant and local/regional metastases. According to Dr Miguel Martin, the endpoint of PFS should be reserved for metastatic breast cancer trials, that is, for trials where subjects have advanced cancer at baseline (11).

III. AMBIGUITY IN THE NAME OF THE ENDPOINT, "DFS"

Typically, endpoints in clinical trials are calculated from the date of randomization. The issue of disclosing the endpoint, and the occasional failure to identify this endpoint, is documented in Chapter 8. Where the endpoint

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