

Chapter 1

Introduction

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The University of Texas MD Anderson Cancer Center, which began operations in 1944, was designated one of the first three comprehensive cancer centers in 1971 under the National Cancer Act and has kept that designation ever since. The first leader of the institution, Dr. Randolph Lee Clark, was a visionary who, from the onset of planning the institution, understood the importance of having an integral record of the many cancer patients treated at the institution and of their survival outcomes. He therefore included, as part of the institution's operational plan, a tumor registry that since 1944 has continuously captured the story of the treatment and outcome of every patient who has walked through the doors of the institution. This uninterrupted data repository, unique in its consistency throughout the institution's history, permits us to retrospectively analyze the changes in survival outcome made within the setting of our cancer-specific care-delivery system over the past 60 years. This monograph is the result of a retrospective review of our Tumor Registry data across six decades and presents a snapshot of the parallel history of cancer care at the institution.

As you will see, survival outcomes, in general, have significantly improved for cancer patients across nearly all disease sites during those 60 years. In some disease categories, this change has been dramatic even for disseminated stages of the disease, whereas in others, such as lung cancer, relatively a little has changed over the course of more than half a century. In the major solid tumors, such as breast and prostate cancers, as well as in gastrointestinal malignancies, very significant

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improvements in outcome have been seen for locally invasive presentations. These improvements can be attributed to multiple factors, but we believe a key element is our disease-based model of care, which integrates multidisciplinary planning and management focused on each specific cancer. Hence, the significant improvements in breast malignancies, for example, can be attributed to concurrent application and improvements in multiple disciplines: progressively better and more accurate diagnostic imaging tools, increasingly effective adjuvant chemotherapy, progressively refined surgical interventions, and progressively advancing radiotherapeutic technologies. All of these modalities and processes have been integrated into algorithms of care for each disease category and are updated as new evidence arises that requires change in disease management. A sample algorithm is illustrated in Fig. 1.1.

Another very important and critical part of the care-delivery design at MD Anderson has been the inclusion of clinical research. Applying the advances made in research to the bedside care of patients, a process summarized in this monograph, has been a driving force at our institution. In situations where clinical investigation is a priority, our clinical care algorithms integrate this recommendation.

The improvements made in cancer outcome across six decades have been incremental and stepwise and do not rely on any single strategy. These improvements have been achieved by integrating the efforts of multiple disciplines. Furthermore, increasing public awareness of the importance of cancer screening and making these screening methods more readily accessible have led to the detection and management of cancer at earlier stages, which can make an enormous difference in terms of survival outcome.

The Tumor Registry is not just a history of cancer care at MD Anderson. It has been a cornerstone for outcomes research and has been instrumental to our clinicians publishing many articles that have influenced cancer care practices. We believe that the Tumor Registry will lead to even bigger contributions to cancer care as information technologies develop. The continually evolving electronic medical records technologies, we hope, will lead to structured documents that standardize clinical terminology and data capture. This would result in more consistent information that would be comparable not only within but across institutions. Furthermore, it is critical to have centralized data that continuously and consistently capture meaningful clinical outcomes. Tumor registries in the future should be increasingly integrated with medical records to ensure more timely and complete data capture.

The value of any care-delivery system is ultimately defined by incremental improvements and consistently sustained good results. We believe that health care delivery that focuses on a group of diseases, self-reflects, self-corrects, and integrates research in all aspects of the management of illness, in a continuum and with consistency, can result in sustained outcome improvement.

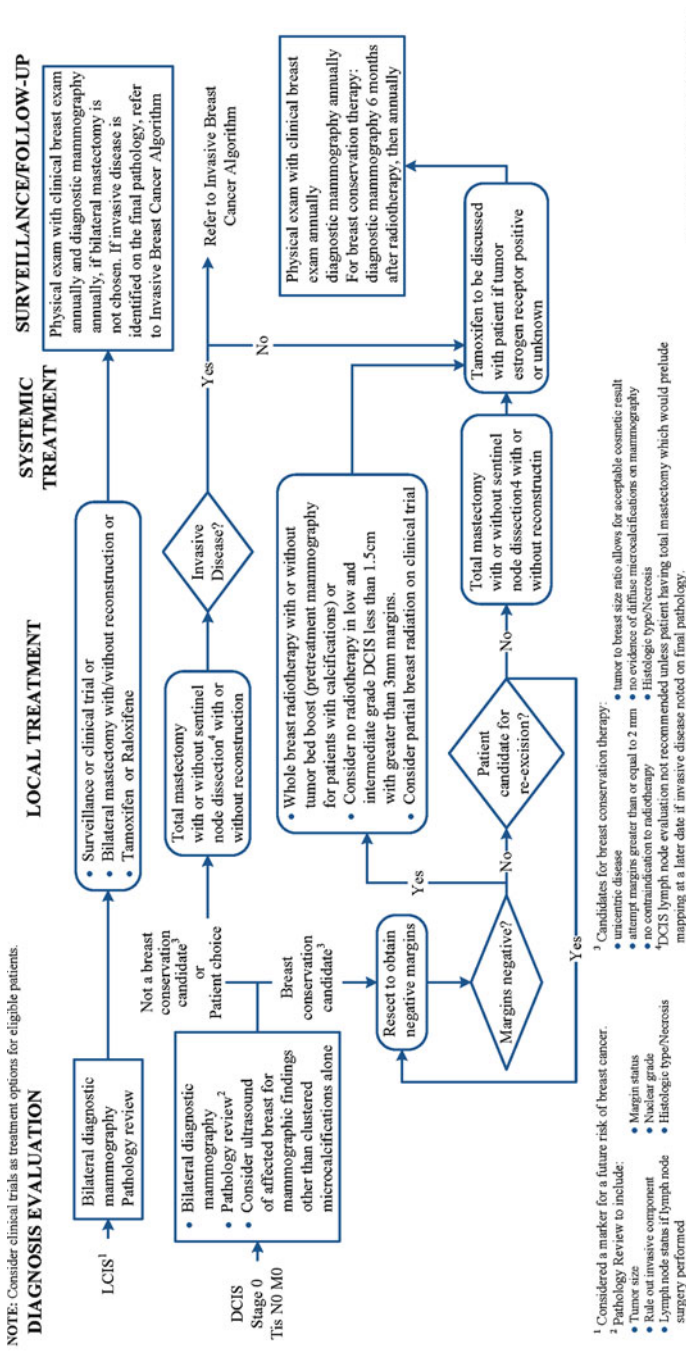


Fig. 1.1 Sample algorithm. Used with permission from MD Anderson Cancer Center.