

Definition of an Oncologist:

Presidential Address

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TODAY SEVEN RECOGNIZED subspecialties exist in the whole field of oncology. These are: surgical oncology, medical oncology, radiation oncology, surgical pathology, pediatric oncology, urologic oncology and gynecologic oncology. All of us use the term oncology, but perhaps each of us has a somewhat different idea of what an oncologist is, depending on our traditional medical discipline. The surgeon feels he is the real oncologist by virtue of the fact that most tumors require surgery, even if only biopsy. The medical oncologist feels in charge by virtue of the fact that chemotherapy treats the whole patient, treats the disease in its systemic stage, which is what ultimately kills the patient. The radiation oncologist feels supreme because his local and regional therapy may cure without necessarily destroying function or appearance. The pediatric oncologist insists that all adult clinicians stay away from pediatric tumors because childhood neoplasms are different; and some of his successes in control tend to support this concept. The surgical pathologist feels most authoritative since he is responsible for diagnosis and he sees neoplastic disease managed by several oncologists from each of the specialties. No one poaches on urology; the urologist has *carte blanche* almost by definition. The gynecologic oncologist feels no one else understands women's diseases, especially cancer, so he deserves to be the real oncologist.

Who is the real oncologist? Will the real oncologist please stand up? And now will everyone please be seated again. Traits common to all oncologists must exist amidst this diversity or else we would not continue to use the overall term oncology. Can we bring some order to this near chaos? Let us try to visualize common traits possessed ideally by all oncologists, regardless of their basic training in traditional medical disciplines.

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First, all oncologists are scientists. They are tumor biologists; they think in fundamental biologic terms about the causes and behavior of neoplasms. This knowledge and ability to think at a basic science level is not easily acquired. Most medical schools teach this only in a general way in core curricula; specialized topics in tumor biology are generally elective, if offered at all. Such knowledge and ability can generally best be acquired in large teaching institutions where oncologic students have the opportunity to work beside, or in association with, basic scientists doing fundamental research. Also, the few oncologic fellowships available provide a good opportunity for acquiring this type of knowledge. The most difficult problem for the practicing oncologist is to update his concepts each year, so rapidly is our knowledge of cell biology progressing.

Second, oncologists concentrate on, and generally limit their work to, cancer. This is not because some organization wants an oncologist to be so limited for administrative, political, social or financial reasons, whatever those might be. An oncologist must concentrate because the field is too diverse, too large, too obscure and changing too fast for any serious effort to succeed except a concentrated one.

Third, oncologists undergo a special training period in addition to their basic residency in a traditional discipline which provides a background for a career in oncology. On completion of this extra training oncologists place themselves in or near centers for the purpose of practicing oncology. This extra time spent in training beyond a traditional residency is absolutely necessary to learn detailed tumor biology and the special competence and technological skills peculiar to cancer work for which basic residency has prepared them. When prepared they then must have access to a sufficient volume of cancer patients so that improved performance will continue through updating of knowledge and perfection of skills. Through practice they will learn to interact with other oncologists in the application of multidisciplinary approaches.

Fourth, individually or as part of a group, oncologists contribute to investigative studies to provide hard data to answer fundamental questions about cancer. The in-

tense study of oncology quickly teaches most of us that management decisions in the past have largely been made on the basis of impression, instinct, and statistically insecure data. The budding oncologist quickly acquires a feeling of responsibility for generating hard data to support his management maneuvers and decisions. This feature of an oncologist, contribution to research, makes him almost unique among clinicians.

Fifth, oncologists follow all their patients and regularly report their treatment results in a uniform format by stage. This sharing of experience, a tradition among serious oncologists, stands as a model for development of a disease oriented field of clinical study and serves as a "trial by fire" for any new therapeutic approach.

Sixth, oncologists take the lead in cancer teaching. Cancer teaching and its partner, cancer program organization, fall naturally into an oncologists chosen sphere of activity. Good cancer patient care depends upon many things; for instance, specialized nursing, good equipment needing upkeep, specialized rehabilitation persons and facilities; social and financial support for patients, and especially a mechanism for patient data collection and management that enables all to learn reliably from the cancer treatment experience. To secure these things and people requires much thought, continual teaching, financial backing, and hard work. In any institution for health care the person who worries about these matters the most, who makes them happen, who pulls them together, is quite naturally the real oncologist.

And last, oncologists develop into expert cancer advisors. With their multifaceted training, experience, and concentration, enabling them constantly to discuss a variety of treatment alternatives for a variety of types of cancer with a variety of other subspecialists in oncology, oncologists acquire a wisdom in predicting the whole course of the cancer; they acquire a mastery of the medical and psychosocial needs of the patient and the patient's family. Accompanying this skill in cancer guidance comes the understanding that leadership in cancer management shifts naturally during the course of the patient's disease from one subspecialist to another and, intermittently, back to the family physician. And from this awareness emerges the realization that struggle for dominance among oncology subspecialists represents amateurism and immaturity. The mature cancer advisor, whatever his traditional discipline, helps the family physician to guide the patient in the best possible way through the cancer experience.

This characterization of a real oncologist may be too demanding. No one perhaps can be expected to do and be all these things. Only a rare physician may measure up to such a standard. However, the oncology pioneers did in simpler times and present leaders come close to

these standards. And we need an ideal at which to aim. Remember that these seven items of performance can be applied only to a longitudinal view of a whole professional career; they cannot be learned at one time nor pursued all at once.

If we can accept some such list of common oncologic characteristics then what about the surgeon? Is he or she not different? The general surgeon already sees a progressively narrowed field so that, beside common abdominal operations, trauma, burns and infections, most care for only a few types of cancer. Further specialization may pass the point of diminishing returns! Is not the general surgeon already a special oncologist for breast, gastrointestinal cancer and melanoma. He seldom sees urologic cancer, gynecologic cancer, lung cancer, pediatric cancer, brain tumors and sees relatively few of the head and neck cancers. Does the general surgeon have to fulfill these seven or so criteria to be able to operate successfully on the relatively few cancers he has referred to him? Obviously not if the cancer is localized. A good surgeon does a good job with real patient benefit in the localized cancer. But surgeons often face a unique dilemma at the operating table when they find unsuspected regional or distant metastases. Suddenly they must make an immediate decision amongst a number of alternatives under the stress of anesthesia time, a decision based upon spot recall of reports, studies, statistics, personal experience over some years, and conflicting conclusions in the literature, a decision usually involving great additional risks and/or major functional disability. Or would more patient benefit accrue from the risk of two anesthetics and a disturbed field on a second try. Many surgeons say "when in doubt, punt," and they do the local removal. But some more definitive alternatives that are solidly founded do exist, and ways exist to find additional answers. The surgeon who operates on the occasional cancer patient usually doesn't have them all.

This surgical dilemma can reasonably be solved in three ways: an exhaustive and expensive preoperative survey for metastasis can be done in every case; or the surgeon can try for an emergency consultation in the operating room with the surgical pathologist, the medical oncologist, and the radiotherapist, if they are free to come at a moment's notice. Or better, the surgeon can be an oncologist whose special knowledge and background fit him to solve this very dilemma. It is what he does in his concentrated practice nearly every day; he will know whatever is knowable. The first solution is expensive and not completely reliable; the second can occur only in relatively large centers where all three subspecialist oncologists are available; and they may not agree, compounding the surgeon's problem. The third solution, being an oncologist, is the problem which

the Society of Surgical Oncology is facing these days; and it may be the better, quicker, cheaper solution, one which can be obtained easier than any other in medium-sized hospitals.

Most of us, I think, would prefer to have surgical decisions for one of our family made by a surgical oncologist rather than by a hastily convened committee. Furthermore, if we recall the detailed medical history of any patient who died of cancer we usually find at least one decision point where more expert, concentrated oncologic thought and attention might possibly have led to a better outcome. This decision point often occurs at first diagnosis and usually surgeons are leading patient management at that point. So the answer to the question as to whether or not a surgeon operating on a patient with cancer needs to be an oncologist is, ideally, yes.

This simplified presentation of the surgeon's oncologic dilemma does not imply that competent operating room judgement is the surgical oncologist's main or only role. He possesses special values as a consultant. Mature surgical oncologic judgement is just as necessary to begin to plan for treatment of a major cancer as the opinion of other subspecialists in oncology. The surgical

oncologist, with his solid grounding in general surgery, is best suited to work out the sequential position of surgery in a multimodal treatment plan, for instance, as well as being the one to tailor the details of resection and reconstruction to fit each particular patient and cancer. He deserves the respect and confidence of his oncologic peers in other subspecialties by his knowledge, just as they deserve his. And we as surgeons expect just as exacting a preparation and performance from the other subspecialists in oncology as we do from ourselves.

Therefore, let us search out the common bonds that unite all oncologists, and use these bonds as the criteria to recognize each other as peers. This is a path toward breaking down barriers between specialties and subspecialties, toward overcoming the creeping insularity characteristic of specialty practice, toward helping to overcome the flawed national image of any specialty practice. We simply need oncologists who are also good doctors, good cancer advisors, who support each other, and oncologists who do not supplant the family physician but are committed to support and supplement the family practitioner. Emphasis on these common bonds will help us to work closer together for the best care of every cancer patient.