Ode to Ephemeraly

Everything in life is finite. Mark Twain put the phenomenon in perspective when he said: “The altar cloth of one aeon is the doormat of the next.” Nowhere is the truth of that observation illustrated more clearly than in medical procedures. The time between the moment when a test is the “procedure of choice” to the day when physicians are saying “we haven’t done one of those in years” is all too brief.

It happens simply and logically. Procedures become outmoded because refinements in instrumentation, or in the indicators used to produce the signal, allow the problem to be evaluated with less risk or higher resolution. Similarly, as research refines our understanding of the pathophysiology of a disease, needs for a new set of parameters are defined, and a new round of tests may be developed. As these procedures emerge from the cocoon of research, we are faced with the problem of selecting the best test to provide information that can lead to clinical action.

It is rare that a new technology offers substantial improvements in sensitivity for disease detection. More often, what is found is an improved understanding about the status of the organ or system. Comparison of CT scanning to blood brain barrier scans for the identification of brain tumors, for example, did not offer a remarkable improvement in sensitivity for disease detection. Rather, CT scans improved our understanding about the impact of the lesion on other structures in the brain. As a result, in societies where high technology equipment is available, CT and MR are the preferred procedures for identifying focal lesions in the central nervous system in 1990. But what of the societies where this technology is not available?

One of our major roles as consultants is to direct clinicians to the most appropriate procedure for their patients. This requires a broad perspective on the relative merits of radionuclide tests vis-a-vis the alternative procedures available in the community. Since practice patterns evolve over time, it is difficult to pinpoint the correct time to delete a test from our armamentarium, or when to advocate a new procedure, particularly when our own experience with the methodology may be limited. These decisions can be said to fall within the art of medicine. With evolving requirements for recredentialing, however, clear criteria for defining this process need to be developed.

Nuclear medicine has always excelled in the development and recognition of new procedures. But as these new procedures arrive the previous standards do not simply disappear: yet all too often the proponents of older procedures are drowned out by the fanfare accompanying the new. What is needed is a special mechanism for systematically comparing procedures as they become available, and for sounding the alarm the moment that the first delicate fringe of the altar cloth touches the ground.

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1 Twain, Mark Notebook, 1935.