Preface

*Thrombolytic Therapy for Acute Stroke, Second Edition* remains intended for any physician seeking to learn to use thrombolytic therapy for acute stroke. As in the first edition, we present facts and data for the reader to consider; opinion is clearly segregated and labeled (see the debate chapters provided by Dr. Lou Caplan and myself.) We updated many chapters extensively, and added sections pertaining to new technology. Notably, some of the leading developers of stroke-magnetic resonance imaging contributed a key new chapter that hopefully will set the stage for improved patient selection. Yet, computed tomography will remain the most widely available imaging procedure for at least another decade, and Professor Rudiger von Kummer extensively revised this important chapter as well.

Patient selection remains the trick, and all chapters describing the background, use, and nuance of thrombolytic therapy were revised extensively. Everything one needs to know, and then some, is provided: rationale, preclinical trials, early trials, and pivotal trials. Practical how-to chapters will guide the reader in treating acute stroke patients, both with and without thrombolytic therapy. To enable the reader to practice the knowledge gained, we replaced all the case scenarios with new, detailed practice cases. Unique, I think, among stroke therapy books, this case section will allow the reader to put into play all of the facts and advice contained in the remainder of the book. Practicing these scenarios will enable practitioners to be as ready as possible for their first case.

The history of thrombolytic therapy for stroke makes for remarkable reading; as evidenced by the series of pilot experiments described in Chapter 6. The first uses of thrombolysis in humans were disasters, but no one knew going in that the risks were so high. Following those horrible results, nearly 20 years passed before the medical community again attempted thrombolytic therapy in stroke. That Greg del Zoppo, Justin Zivin, and especially John Marler were able to inspire the large, randomized trials of the early 1990s, based on critical animal experiments, is impressive.

As predicted in the preface to the first edition, to this day there remains no medical experiment of comparable size, complexity, or courage from patients and families as the NINDS rt-PA for Acute Stroke Trial. It is said, even now almost a decade after the landmark trial, that thrombolytic therapy can be used only in specialized centers full of “commandos” willing to take call and respond to Code Stroke calls on a moment’s notice. As the case scenarios demonstrate, the commando model is certainly on the wane. Stroke patients now receive thrombolytic therapy in a variety of venues, and from a wide range of physicians, including emergency, internal, and family medicine practitioners. There is no doubt, however, that expertise and dedication to learning the protocol is required, as elegantly docu-
mented by the Cleveland Area survey, among other studies: a new chapter has been added that surveys the community implementation of thrombolytic stroke therapy.

The personal toll the original NINDS trial exacted from the authors—my friends and colleagues—is now nearly the stuff of legend in clinical neurology. In some ways, the legends both underplay and overstate the struggle we endured, but that is another story. The important point, to me, is that in many centers thrombolytic stroke therapy is now routine, as integrated in the daily functions of the medical center as Code Blue or cardiac transplantation. Getting us to this point required creativity, sacrifice, extreme effort, and in some cases heroism. The hard job is done now, and the task remains to diffuse the knowledge throughout the medical profession and in public: too few patients receive good stroke care, and during the time it took to read this preface, two more patients in the United States suffered disabling strokes. Thrombolytic therapy for stroke reduces disability; time is brain my friends, and the clock is ticking.

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Thrombolytic Therapy for Acute Stroke
Lyden, P.D. (Ed.)
2005, 392 p. 178 illus., 1 illus. in color., Hardcover
A product of Humana Press