

# Preface

This book remains intended for any physician seeking to learn to use thrombolytic therapy for acute stroke. As in prior editions, we present facts and data for you to consider while segregating our opinions clearly apart from the facts. For this third edition we updated many chapters extensively and added sections pertaining to new technology. Notably, some of the leading champions of stroke MRI updated a key chapter that hopefully will point us toward improved patient selection. For a while longer, CT will remain the most widely available imaging procedure, and Professor Rudiger von Kummer extensively revised this important chapter as well.

Careful patient selection remains the trick, and all chapters describing the background, use, and nuance of thrombolytic therapy were revised. Everything you need to know is provided: rationale, preclinical trials, early trials, and pivotal trials. Practical how-to chapters guide you in treating acute stroke patients, with or without thrombolytic therapy. To enable the reader to practice the knowledge gained, we added new case scenarios in an interactive format. Unique, I think, among stroke therapy books, this practice case section will allow you to utilize all the facts and advice contained in the remainder of the book. Work the scenarios, and you will be as ready as you can be for your first case.

The history of thrombolytic therapy for stroke makes for remarkable reading and I recommend a memoir by Dr. Justin Zivin, with John Simmons, for profound insights into the back-story<sup>1</sup>. Initially, thrombolysis in humans caused 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, should impress us all.

Sadly, today thrombolytic therapy stands alone as the single successful stroke therapy of our generation. Encouragingly, we finally have begun to move beyond the prediction that thrombolytic therapy can be used only in specialized centers full

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<sup>1</sup>t-PA for Stroke: The Story of a Controversial Drug. Justin A. Zivin and John Galbraith Simmons. December 2010. Oxford University Press, USA.

of “commandos” willing to take call and respond to Code Stroke calls on a moment’s notice. 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. In the USA, the Joint Commission certifies Primary and Comprehensive Stroke Centers, fulfilling a fanciful prediction some of us made—half joking—during the years we sought to roll out thrombolytic therapy for acute stroke to a wide audience. Today it is as true as it ever was, however, that expertise and dedication to learning the protocol are required.

The personal toll the original NINDS trial exacted from the authors—my friends and colleagues—has become legend in clinical neurology. In some ways the legends both underplay and overstate the struggle we endured. Yes there were divorces, neglected children, and wild, high-speed rides through red lights and across freeway medians, but no story—told in the comfort of a classroom or a seminar hall—can possibly recreate the sensation that comes while injecting irretrievably a bolus of potentially fatal thrombolytic into a patient you met about 20 min ago. 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, 2 more patients in the USA suffered disabling strokes.

Thrombolytic therapy for stroke reduces disability; time is brain my friends, and the clock is ticking.

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