The Cost Effectiveness of Digital Subtraction Angiography in the Diagnosis of Cerebrovascular Disease

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The Cost Effectiveness of Digital Subtraction Angiography in the Diagnosis of Cerebrovascular Disease

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This case study was performed as part of OTA’s Assessment of Medical Technology and Costs of the Medicare Program

Prepared for OTA by:
Matthew Menken, M.D.
Gordon H. DeFriese, Ph.D.
Thomas R. Oliver, M.H.A.
Irwin Litt, M.D.

The Health Services Research Center
University of North Carolina at Chapel Hill

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OTA Case Studies are documents containing information on a specific medical technology or area of application that supplements formal OTA assessments. The material is not normally of as immediate policy interest as that in an OTA Report, nor does it present options for Congress to consider.
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Preface

The Cost Effectiveness of Digital Subtraction Angiography in the Diagnosis of Cerebrovascular Disease is Case Study 34 in OTA’s Health Technology Case Study Series. This case study has been prepared in connection with OTA’s project on Medical Technology and Costs of the Medicare Program, which was requested by the House Committee on Energy and Commerce and its Subcommittee on Health and the Environment and the Senate Committee on Finance, Subcommittee on Health. A listing of other case studies in the series is included at the end of this preface.

OTA case studies are designed to fulfill two functions. The primary purpose is to provide OTA with specific information that can be used in forming general conclusions regarding broader policy issues, The first 19 cases in the Health Technology Case Study Series, for example, were conducted in conjunction with OTA’s overall project on The Implications of Cost-Effectiveness Analysis of Medical Technology. By examining the 19 cases as a group and looking for common problems or strengths in the techniques of cost-effectiveness or cost-benefit analysis, OTA was able to better analyze the potential contribution that those techniques might make to the management of medical technology and health care costs and quality.

The second function of the case studies is to provide useful information on the specific technologies covered. The design and the funding levels of most of the case studies are such that they should be read primarily in the context of the associated overall OTA projects. Nevertheless, in many instances, the case studies do represent extensive reviews of the literature on the efficacy, safety, and costs of the specific technologies and as such can stand on their own as a useful contribution to the field.

Case studies are prepared in some instances because they have been specifically requested by congressional committees and in others because they have been selected through an extensive review process involving OTA staff and consultations with the congressional staffs, advisory panel to the associated overall project, the Health Program Advisory Committee, and other experts in various fields. Selection criteria were developed to ensure that case studies provide the following:

- examples of types of technologies by function (preventive, diagnostic, therapeutic, and rehabilitative);
- examples of types of technologies by physical nature (drugs, devices, and procedures);
- examples of technologies in different stages of development and diffusion (new, emerging, and established);
- examples from different areas of medicine (e.g., general medical practice, pediatrics, radiology, and surgery);
- examples addressing medical problems that are important because of their high frequency or significant impacts (e.g., cost);
- examples of technologies with associated high costs either because of high volume (for low-cost technologies) or high individual costs;
- examples that could provide information material relating to the broader policy and methodological issues being examined in the particular overall project; and
- examples with sufficient scientific literature.

Case studies are either prepared by OTA staff, commissioned by OTA and performed under contract by experts (generally in academia), or written by OTA staff on the basis of contractors’ papers.

OTA subjects each case study to an extensive review process. Initial drafts of cases are reviewed by OTA staff and by members of the advisory panel to the associated project. For commissioned cases, comments are provided to authors, along with OTA’s suggestions for revisions. Subsequent drafts are sent by OTA to numerous experts for review and comment. Each case is seen by at least 30 reviewers, and sometimes by 80 or more outside reviewers. These individuals may be from relevant Government agencies, professional societies, consumer and public interest groups, medical practice, and academic medicine. Academicians such as economists, sociologists, decision analysts, biologists, and so forth, as appropriate, also review the cases.

Although cases are not statements of official OTA position, the review process is designed to satisfy OTA’s concern with each case study’s scientific quality and objectivity. During the various stages of the review and revision process, therefore, OTA encourages, and to the extent possible requires, authors to present balanced information and recognize divergent points of view.
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<sup>b</sup>Original publication numbers appear in parentheses.

<sup>c</sup>The first 17 cases in the series were separately issued cases in Background Paper #2: Case Studies of Medical Technologies, prepared in conjunction with OTA’s August 1980 report The implications of Cost-Effectiveness Analysis of Medical Technology.

<sup>d</sup>Background paper #3 to The Implications of Cost-Effectiveness Analysis of Medical Technology.

<sup>e</sup>Background paper #5 to The Implications of Cost-Effectiveness Analysis of Medical Technology.

<sup>f</sup>Background paper #1 to OTA’s May 1982 report Technology and Handicapped People.

<sup>g</sup>Background paper #2 to Technology and Handicapped People.
OTA Project Staff for Case Study #34

Roger Herdman, Assistant Director, OTA
Health and Life Sciences Division

Clyde J. Behney, Health Program Manager

Anne Kesselman Burns, Project Director

Katherine E. Locke, Research Assistant
Pamela J. Simerly, Research Assistant
Edward Seibert, Research Assistant
Brad Larson, Research Assistant

Virginia Cwalina, Administrative Assistant
Beckie I. Erickson, P. C./Word Processor Specialist
Brenda Miller, P. C./Word Processor Specialist
Diann Hohenthaler, Secretary
Carol Guntow, Clerical Assistant

1Until September 1984
2September 1984
3Since March 1985
5Since February 1985
6Since October 1984
Medical Technology and Costs of the Medicare Program Advisory Panel*

Stuart Altman, Panel Chair
Dean, Florence Heller School, Brandeis University

Frank Baker
Vice President
Washington State Hospital Association

Robert Blendon
Senior Vice President
The Robert Wood Johnson Foundation

Jerry Cromwell
President
Health Economics Research
Chestnut Hill, MA

Karen Davis
Chair, Department of Health Policy and Management
School of Hygiene and Public Health
Johns Hopkins University

Robert Derzon
Vice President
Lewin & Associates
Washington, DC

Howard Frazier
Director
Center for the Analysis of Health Practices
Harvard School of Public Health

Clifton Gaus
President, Foundation for Health Services Research
Washington, DC

Jack Hadley
Director
Center for Health Policy Studies
Georgetown University

Kate Ireland
Chairman, Board of Governors
Frontier Nursing Service
Wendover, KY

Judith Lave
Professor
Department of Health Economics
University of Pittsburgh

Mary Marshall
Delegate
Virginia House of Delegates

Walter McNerney
Professor of Health Policy
J. L. Kellogg Graduate School of Management
Northwestern University

Morton Miller
Immediate Past President
National Health Council
New York, NY

James Mongan
Executive Director
Truman Medical Center
Kansas City, MO

Seymour Perry
Deputy Director
Institute for Health Policy Analysis
Georgetown University Medical Center

Robert Sigmond
Director, Community Programs for Affordable Health Care
Advisor on Hospital Affairs Blue Cross/Blue Shield Associations

Anne Somers
Professor
Department of Environmental and Community and Family Medicine
UMDNJ—Rutgers Medical School

Paul Torrens
School of Public Health
University of California, Los Angeles

Keith Weikel
Group Vice President
AMI
McLean, VA

*The affiliations of the panel members reflect their positions during the assessment (June 1982-July 1984).