Appendixes

Appendix A
Method of the Study

OTA's assessment "Life-Sustaining Technologies and the Elderly" was requested by the Senate Special Committee on Aging and the House Select Committee on Aging. It was preceded by a planning effort that identified relevant congressional concerns and established a tentative plan for the study. A project proposal was developed and approved by OTA's Technology Assessment Board in September 1984. Staff were recruited and hired, and work commenced in October 1984. The original staff consisted of a project director, three analysts, and two research assistants, with backgrounds in gerontology, social work, public health, and law.

In preparing assessments, OTA relies heavily on the advice and assistance of persons outside the Office. Each project has an advisory panel, which advises and assists staff throughout the course of the assessment. The panel suggests source materials, subject areas, and perspectives to consider; reviews drafts prepared by staff and contractors; helps interpret information; suggests conclusions based on the information prepared by staff; and offers advice in the development of policy issues and options. Panelists do not, however, determine the final form or content of an assessment, and they are not responsible for its conclusions. Other important contributors to an assessment include the numerous individuals who serve as contractors and reviewers, providing resources and valuable technical assistance in their areas of expertise.

The advisory panel for "Life-Sustaining Technologies and the Elderly" consisted of 20 individuals with backgrounds in medicine (especially geriatrics), biomedical ethics, long-term care, health economics, health law, and technology development. Their expertise and experience included the full range of treatment settings in which life-sustaining technologies are used and the diverse viewpoints of patients, families, and professional groups involved in the care of life-threatened elderly persons. John W. Rowe, M.D., of Beth Israel Hospital and the Harvard Medical School, served as chairman. (Members of the panel are listed at the beginning of this report.) Between March 1985 and February 1986, three panel meetings were held. The panel meetings were open to the public, and some observers attended each meeting.

At the first panel meeting, March 15, 1985, discussion focused on the scope of the assessment and identification of the major issues to be addressed. The panel considered staff's preliminary outline for the assessment, and agreement was reached that the focus would be on five technologies, namely, cardiopulmonary resuscitation, mechanical ventilation, dialysis, nutritional support and hydration, and life-sustaining antibiotic therapy, It was further decided that there would be a chapter on each technology, plus chapters on the legal issues, the ethical issues, and one on manpower and training issues.

To augment in-house research, project staff solicited proposals and awarded contracts on each of the five technologies; on future developments in life-sustaining technologies; on legal issues and ethical aspects of decisions about life-sustaining technologies; on manpower and training for the selected technologies; on the clinical economics of nutritional support and life-sustaining antibiotic therapy; and on patient classification systems. OTA also awarded contracts for background papers on the use of life-sustaining technologies in six other countries. (The final reports for each of the contracts, as listed at the end of this appendix, may be obtained from the National Technical Information Service in Springfield, VA.)

By integrating the work of contractors with their own research, OTA staff prepared an initial draft of the report and sent it to the advisory panel for review. This draft was considered in detail at the second meeting of the advisory panel, held October 21-22, 1985. One topic of the meeting was how much technical and clinical detail about the technologies should be included in the report to support and inform discussion of the public policy concerns relative to the technologies. Another major topic of discussion was the use of age as a criterion in decisions about life-sustaining treatments.

In addition to being reviewed by the advisory panel and by project staff, individual draft chapters were reviewed by OTA staff not connected with this assessment and by a large number of other individuals. External reviewers are listed in appendix B.

Project staff made additions and revisions to the draft chapters based on suggestions and comments of all reviewers and sent revised drafts to the advisory panel. At the final meeting of the advisory panel, February 4-5, 1986, these revised draft chapters were reviewed. The panel made suggestions about the areas of emphasis and organization of the final report and discussed Federal policy options. The panel proposed and reached consensus on a series of general principles to guide decisions about life-sustaining treatments and suggested that these be included in the final assessment (see ch. 1).

Following the third panel meeting, the report was substantially revised and subjected to additional ex-

ternal review. It was then approved by the Technology Assessment Board and submitted to the requesting congressional committees.

OTA held two workshops in conjunction with this assessment. The first workshop was on "Making Medical Decisions for Mentally Impaired Adults." It was a joint undertaking of this assessment and the OTA assessment on dementia and was held on Sept. 23, 1985. Participants at the workshop, listed below, reviewed two contractor documents, "Surrogate Decisionmaking for Elderly Individuals Who Are Incompetent or of Questionable Competence" and "Withholding and Withdrawing of Life-Sustaining Treatment for Elderly Incompetent Patients: A Review of Court Decisions)" and discussed methods for improving surrogate decisionmaking for decisionally incapable adults. In response to the recommendation of the workshop participants, OTA subsequently contracted for a third background paper, "Legal Perceptions and Medical Decisionmaking." Excerpts from all three documents were published by Milbank ***Memorial Fund Quarterly,*** Vol. 64, Supplement 2, 1986.

The second workshop held in conjunction with this assessment was on "Classification Systems for Decisionmaking for Critically Ill Elderly Patients," held May 14, 1986. The workshop participants, listed below, reviewed a contractor report on classification systems and discussed the use of chronological age in existing classification systems and the validity and usefulness of these systems for individual treatment decisions.

Some conclusions of both workshops are included in this report on Life-Sustaining Technologies and the Elderly. For detailed analysis of the topics, the interested reader is encouraged to refer to the contractor documents, which are available from the National Technical Information Service.

Workshop Participants

Making Medical Decisions for Mentally Impaired Adults, Sept. 23, 1985

Elias S. Cohen, Cochair
Community Services Institute, Inc.
Narbeth, PA

Daniel Wikler, Cochair
Department of History of Medicine
Program in Ethics
University of Wisconsin

Thomas L. Beauchamp
Kennedy Institute of Ethics
Georgetown University

Richard W. Besdine
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Roslyndale, MA

Dorothy H. Coons
Institute of Gerontology
University of Michigan

Ronald E. Cranford
Department of Neurology
Hennepin County Medical Center
Minneapolis, MN

Anne J. Davis
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University of California, San Francisco

Daniel C. Dennett
Department of Philosophy
Tufts University

Nancy Neveloff Dubler
Division of Legal and Ethical Issues in Health Care
Montefiore Medical Center
Bronx, NY

Bernard Lo
Institute for Health Policy Studies
University of California, San Francisco

Alan Meisel
School of Law
University of Pittsburgh

Vijaya L. Melnick
Center for Research and Urban Policy
University of the District of Columbia

Paul Nathanson
Institute of Public Law
University of New Mexico

Cynthia E. Northrop
Attorney
New York, NY

John J. Regan
School of Law
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Marion Roach
Journalist
New York, NY

Randa Lee Smith
Alzheimer Program
Casa Colina Hospital
Pomona, CA

David C. Thomasma
Loyola Stritch School of Medicine
Loyola University Medical Center
Maywood, IL

Classification Systems for Decisionmaking for Critically Ill Elderly Patients, May 14, 1986

Harold C. Sex, Chair
Division of Internal **Medicine**
Palo Alto VA Medical Center

Stephen Ayres
School of Medicine
Medical College of Virginia

David J. Cullen
Recovery Room
Massachusetts General Hospital

Ian Frasier
Ewart Angus Intensive Care Unit
The Wellsley Hospital
University of Toronto

David H. Gustafson
University of Wisconsin
Madison, WI

Frank E, Harrell, Jr.
Division of Biometry
Duke University Medical Center

Susan Horn
Center for Hospital Finance and Management
Johns Hopkins University

William A. Knaus
ICU Research Unit
George Washington University School of Medicine

Jean-Roger LeGall
Service de Reanimation Medicale
Hospital Saint-Louis

Stanley Lemeshow
Division of Public Health
School of Health Sciences
University of Massachusetts at Amherst

William Lohr
National Center for Health Services Research
Hyattsville, MD

Albert Mulley
General Internal Medicine Unit
Massachusetts General Hospital

Robert Oye
Department of Medicine
UCLA School of Medicine

Daniel Teres
Adult Critical Care Services
Baystate Medical Center

Douglas Wagner
ICU Research Unit
George Washington University School of Medicine

Contracts Written for OTA and Where They Can Be Obtained

The contract papers written for OTA'a assessment ***"Life-Sustaining Technologies and the Elderly*** have been compiled in five volumes that are available from the National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Rd., Springfield, VA, 22161; phone (703) 487-4650.

Life-Sustaining Technologies and the Elderly: Working Papers, Volume 1: The Technologies, Part 1

"Cardiopulmonary Resuscitation in the Elderly," by Christine K. Cassel, Marc D. Silverstein, John LaPuma, Michael McCally, Dianne Roland, Mary Ahern, and Suzanne Mitchell, Center for Clinical Medical Ethics, Pritzker School of Medicine, University of Chicago, Chicago, IL.

"Prolonged Mechanical Ventilation," by Allen I. Goldberg, with contributions by Lu Ann Aday, Marlene J. Aitken, Augusta Alba, Robert J, Byrick, Candice Clark, Susen Dunmire, Donna Frownfelter, Sam P. Giordano, Bernard Goldstein, Frank J. Indihar, Gini Laurie, Margaret Pfrommer, Howard Robboy, and Ed Roberts, for Care for Life, Chicago, IL.

"Hemodialysis, Peritoneal Dialysis, and Related Therapies for Renal Dialysis and the Elderly/Technology, " by Christopher R. Blagg, Northwest Kidney Center, Seattle, WA.

"Renal Dialysis Decisionmaking," by Richard B. Freeman, University of Rochester Medical Center, Rochester, NY.

"Report on the Treatment of Elderly Patients by Dialysis and Transplantation in Europe)" by S. Challah, European Dialysis and Transplant Association, London, U.K.

Life-Sustaining Technologies and the Elderly Working Papers, Volume 2: The Technologies, Part 2

"Nutritional Support and Hydration for Critically and Terminally Ill Elderly," by David A. Lipschitz and Ronni Chernoff, John L. McClellan Memorial Veterans Hospital, Little Rock, AK.

"Nutritional Support and Hydration for Critically and Terminally Ill Elderly," by Lyn Howard, with contributions by Lenore Heaphey, Michael Wolff, Jean Bigaouette, John Jenks, Liva Jacoby, John Balint, Michael Caldwell, and C. Richard Fleming, for the Oley Foundation, Albany Medical Center, Albany, NY.

"Antibiotics and the Elderly," by David W. Bentley, William H. Barker, Kathryn M. Hunter, Peter D. Mott, Charles E. Phelps, and Patricia A. Tabloski, University of Rochester and Monroe Community Hospital, Rochester, NY.

"Technology Assessment on Future Developments in Life-Sustaining Technologies for Elderly," by Yukihiko Nose, Makoto Usami, Takashi Horiushi, and Paul Malchesky, for the International Center for Artificial Organs and Transplantation, Cleveland Clinic Foundation, Cleveland, OH.

"The Clinical Economics of Nutrition Support Services and Antibiotic Medications for the Critically and Terminally Ill Elderly," by Deborah S. Kitz, Henry Glick, and John M. Eisenberg, University of Pennsylvania, Philadelphia, PA.

Life-Sustaining Technologies and the Elderly Working Papers, Volume 3: Legal and Ethical Issues, Manpower and Training and Classification Systems for Decisionmaking

"An Ethical Analysis of Withdrawal From Life-Sustaining Technologies and Assisted Death," by James F. Childress, Department of Religious Ethics, University of Virginia, Charlottesville, VA.

"Distributive Justice and the Allocation of Technological Resources to the Elderly," by Robert M. Veatch, Kennedy Institute of Ethics, Georgetown University, Washington, DC.

"Life-Sustaining Technologies and the Elderly: The Legal Issues)" by Connie Zuckerman, Montefiore Medical Center, Bronx, NY.

"Geriatric Expertise in the Context of Critical and Terminal Care, " by Patricia Barry and Lawrence Markson for the American Geriatrics Society, New York, NY.

"Manpower for Selected Technologies)" by Ruth S. Hanft, Catherine C. White, and Linda E. Fishman for Ruth Hanft Associates, Washington, DC.

"Classification Systems for Decisionmaking for Critically Ill Elderly Patients," by Robert W. Gage, Stanley Lemeshow, and Jill S. Avrunin, University of Massachusetts, Amherst, MA, and Daniel Teres, Baystate Medical Center, Springfield, MA.

Life-Sustaining Technologies and the Elderly Working Papers, Volume 4: Use of Life-Sustaining Technologies in Other Countries

"Legal Issues: Italy)" by Emily C. Moore, Rome, Italy.

"Elderly in Japan," by Rihito Kimura, Kennedy Institute, Washington, DC.

"Legal Issues: Canada)" by Holly Dugan, Johns Hopkins University Center on Aging, Baltimore, MD.

"Legal Issues: Yugoslavia," by Christoph Haug, Johns Hopkins University Center on Aging, Baltimore, MD.

"Legal Issues: Federal Republic of Germany, " by Christoph Haug, Johns Hopkins University Center on Aging, Baltimore, MD.

"The Medical Care and Treatment of the Critically Ill Elderly in China: Issues and Lessons for American Policies," by John Langenbrunner, Washington, DC.

Philosophical, Legal and Social Aspects of Surrogate Decisionmaking for Elderly Individuals, May 1987

"Surrogate Decisionmaking for Elderly Individuals Who Are Incompetent or of Questionable Competence," by Allen Buchanan, Department of Philosophy, University of Arizona, AZ; and Dan W. Brock, Department of Philosophy, Brown University, RI.

"Withholding and Withdrawing of Life-Sustaining Treatment for Elderly Incompetent Patients: A Review of Court Decisions and Legislative Approaches)') by George J. Annas and Leonard H. Glantz, Boston University Schools of Medicine and Public Health, MA.

"Legal Perceptions and Medical Decisionmaking," by Marshall B. Kapp, Department of Medicine in Society, Wright State University, Ohio; and Bernard Lo, Department of Medicine, University of California, San Francisco, CA.

"Philosophical Issues Concerning the Rights of Patients Suffering Serious Permanent Dementia," by Ronald Dworkin, Department of Philosophy, University College, Oxford, England.