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EDITORIAL
Seeking Technical Consensus on Medical Interventions

The evolution of science has yielded a time-tested process for the conversion of information to knowledge, and knowledge to wisdom. Involved are familiar and accepted phases: posing the question, conducting the experiment, preparing the report, receiving editorial review and criticism, and (sometimes after considerable delay) achieving publication. As the contribution passes into the literature, it diffuses into general awareness and undergoes further evaluation in a number of ways. Eventually it will become grist for resynthesis along with other knowledge. With even more time it may become doctrine encased between the covers of authoritative texts.

The method is slow and tedious, but for good reasons. There are limits to its acceleration and one approaches cautiously any perturbation of the dynamics of a system that seems almost to derive from natural law.

Yet one hears arguments today for modifying the traditional ways of handling information in the biomedical sciences. For these older ways are not particularly attuned to a rising demand for wisdom—and better-quality wisdom, if you please, served up with shorter delays—about medical questions that have important social dimensions. This demand is created by physicians, planners, payers, politicians, patients, and others who want authoritative opinions on health technologies.

There is an inescapable need to enhance the present highly informal but often haphazard process for creating authority by increments of opinion. Failure to do so can only result in further uncertainty about medical inventions that is either unnecessary or intolerable. Another consequence will be the rise of ambitious creations for "technology management," which may rely unduly on regulatory measures or marketing controls. In this issue of CLINICAL RESEARCH is an article describing a novel exercise to hasten the search for consensus in the old-fashioned way.

"National Institutes of Health Consensus Development Panel: Statement of Recommendations on Breast Cancer Screening" summarizes the activities, conclusions, and recommendations of an NIH-NCI panel convened to examine issues and the state-of-the-art in breast cancer screening, particularly through use of mammography.

Recent findings have raised serious questions about risks and benefits associated with mammography as an aid to cancer case-finding. Among interested scientists and clinicians, opinions were sharply divided. The magnitude of the issue was indicated by the fact that nearly 300,000 women were voluntary participants in a government-sponsored screening program that included the use of this technique.

Accordingly, in September 1977, a 16-member panel—carefully chosen to include knowledgeable clinicians, scientists, other experts, and interested laymen—met in open session for three days at Bethesda, Maryland. The panel reviewed available data, heard the views of expert and lay witnesses, and developed conclusions and recommendations. These represent the consensus judgment of the panelists.

The proceedings reflect several imperatives that must be met in attempts to hasten resolution of scientific issues in this way:

- The need to select questions that are susceptible of solution;
- The need for broad and open participation, and a careful balancing of inevitable biases among the presenters and deciders;
- The importance of making available a clear record of deliberations;
- The need to explain conclusions in terms suitable to the varied audiences with an interest in the outcome;
- The need to achieve consensus on the gaps in knowledge as well as on the advances; and
- The desirability of confining the search for authority within the limits of expertise assembled.

It is this last concern that has led us to speak of

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a search for *technical consensus.* We believe that the scientific community must avoid all pretension of ultimate wisdom in these exercises. If we lay out the state-of-the-art—what it is we know and do not know from data scientifically derived—we will serve medicine and society through provision of a sounder base on which further value judgments can be laid.

Further programs for consensus development on controversial medical interventions are planned and will be announced in CLINICAL RESEARCH.

DONALD S. FREDRICKSON
Director
National Institutes of Health
Bethesda, Maryland