



Permanente Physicians Determine Use of New Technology: Kaiser Permanente's Interregional New Technologies Committee

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Background

Increasingly, as advances in medical technology lead to new clinical applications, difficult issues arise—social, legal, ethical, economic—to challenge individual health care practitioners and the health care industry alike. To respond to these issues and challenges, new structures of decision making are needed. Ideally, available information allows these structures to be created preventively; in practice, they often develop in response to past events. An example of the latter sequence is the Kaiser Permanente (KP) Interregional New Technologies Committee (INTC), which was formed in the early 1980s as a result of two major court decisions.

One of these cases—a class action lawsuit in which \$40 million in damages was assessed against the KP Northern California Region—ensued after the Region decided to delay coverage of in vitro fertilization (IVF) for about two years after reasonable scientific evidence had shown IVF to be safe and effective for treating certain types of infertility. The court found that the decision to designate IVF as “experimental”—thus delaying coverage for the procedure—was not based on sound scientific evidence and did not result from a well-documented process of evaluation.

In the other case (in the former KP Texas Region), the parents of twins with severe congenital liver disease requested liver transplantation for the infants. The request was denied on the grounds that the procedure was experimental in infants. At the time, liver transplantation in adults was still new and was widely considered experimental; liver transplantation in infants had not yet been done. Nonetheless, a media storm of bad publicity attended the Region's denial, and a settlement of \$5 million was awarded to the family of the twins. Both twins received liver transplantation, and both ultimately died.

The KP INTC today considers many topics in addition to infertility treatment and organ transplantation. Recent and upcoming clinical topics for INTC discussion include cervical cancer screening technologies, transmyocardial revascularization, photodynamic therapy (PDT) for treatment of esophageal cancer, PDT for age-related macular degeneration, percutaneous vertebroplasty, and melanoma vaccines.

Formation of KP Interregional Physician-Led Committee

The Executive Medical Directors of the KP Regions (which numbered 12 at the time) chartered the Committee to develop an explicit process for evaluating new medical technologies. The Committee's purview included drugs, devices, procedures, and determining whether a particular new technology is experimental. The Committee's goal was threefold: 1) to evaluate available scientific evidence, 2) to determine if a new technology is safe and effective, and 3) to recommend to the Regions whether a specified technology should receive Health Plan coverage. This threefold goal transcended Regional boundaries: A major premise of the Committee was that the “community standard” had become the national standard and that, for example, current expectations for practice in California should also be the current expectations for practice in other states.

Initially established by the late Paul Lairson, MD, who served as Physician Liaison (the predecessor position to the Executive Director of The Permanente Federation), the Committee began by examining issues such as heart transplantation, lung transplantation, gastric stapling, and radial keratotomy. Given this history, we may reasonably say that Kaiser Permanente has been practicing evidence-based medicine since long before this concept entered the medical vernacular.

The Committee is currently chaired by Dr Jed Weissberg, Associate Executive Director of The Permanente Federation, and is managed by Mitchell Sugarman, Director of Medical Technology Assessment in The Permanente Federation (Table 1). Through these members, the Committee gains access to Permanente specialists throughout the KP Program so that the evidence supporting use of a specific technology for a given medical condition can be evaluated by physicians who regularly treat that condition.

Committee Evaluative Process

The Committee meets quarterly to review all information pertaining to the safety, efficacy, and comparative utility of medical technologies presented to the Committee for determination. If the status of a particular technology requires more extensive evalu-



MITCHELL SUGARMAN is the Director of Medical Technology Assessment for The Permanente Federation. He manages the process used by Kaiser Permanente to evaluate new medical technologies, including procedures, devices, and drugs, as they move from being experimental and unproven to being the nonexperimental standard of care.



Table 1. Kaiser Permanente Interregional New Technologies Committee membership

Physicians at the senior management level from six of the KP Regions
Legal counsel
Pharmacy operations representative
The Director of The Permanente Federation's Care Management Institute
Two Health Plan benefits senior managers
Director of Medical Technology Assessment in The Permanente Federation
The Director of Technology Assessment and Guidelines in Southern California Region
The Director of TPMG New Medical Technology in Northern California Region
A medical ethicist

Table 2. Activities managed by KP Regional Technology Assessment Committees

Regional impact/implications of INTC recommendations
Dissemination of INTC minutes and other information from the INTC
Updating appropriate regional personnel on new technology issues
Regional interest in new technologies not addressed by the INTC
Benefit exceptions
Cases sent for outside, third-party ombudsman review

ation, the Committee refers the technology to an ad hoc or standing Regional committee for further review. Examples of standing Regional committees within KP include the Northern California Regional Bone Marrow Transplant Advisory Board, the Southern California Regional Biotechnology Committee, and the Northwest Regional Cytokine Advisory Board.

When sufficient information is available, the Committee compares the safety, efficacy, and relative utility of the new medical technology with current medical practice. In some instances, a new medical technol-

ogy stands alone as a completely new innovation, making comparison difficult. In this situation, the safety, efficacy, and utility of the technology must be evaluated without any comparison.

Agenda items for the INTC come from a variety of sources. An individual Permanente physician may inquire if the INTC has data or a report on the technology that the physician can use to make a decision about a patient. A Health Plan benefits manager at KP may simply want to know if the technology is included in Health Plan coverage. These inquiries may not require extensive review by the INTC, because relevant data may already exist. Through the INTC's contacts, physicians in one KP Region can easily be connected with physicians in another KP Region who may have the experience sought by the first physician. However, when a question does not have a simple answer or when the technology prompts divergent views, the topic is likely to be placed on the INTC's agenda. After the INTC makes a recommendation, the recommendation is disseminated throughout the Program, primarily through the recorded minutes of the INTC meeting.

KP Regional Committees

Each KP Region maintains a local committee composed of regional representatives who are responsible for direct communication with the INTC. This group raises issues and sends requests for technology assessments to the INTC and acts on recommendations made to the KP Regions by the INTC. Ultimately, the group is responsible for evaluating the impact and implications of INTC recommendations as these recommendations affect the Region's benefit structure. The group is also responsible for communicating with appropriate practitioners in the Region to inform them of any changes in INTC recommendations. Table 2 shows activities managed by the KP Regional Committees.

Decision making and Controversies

Over the years, the INTC has studied hundreds of issues arising from availability of new technology. Because development of medical technology is a dynamic process in which new data regularly become available, many of these issues have been reassessed many times, and recommendations have subsequently been updated when appropriate.

As might be expected from the nature of this developmental activity, the process has also been filled with controversy. Medicine is not an exact science, and evidence is sometimes not conclusive; therefore,

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Table 3. Resources for evidence gathered by INTC in evaluating new technology

Peer-reviewed medical literature

Governmental agencies

- US Food and Drug Administration (FDA)
- National Institutes of Health (NIH)
- National Cancer Institute (NCI)
- Centers for Disease Control and Prevention (CDC)
- Agency for Health Care Policy and Research (AHCPR)

Medical Associations

- Medical specialty societies
- American College of Physicians (ACP)
- American Medical Association (AMA)
- American Hospital Association (AHA)

Private Technology Assessment Organizations

- ECRI (formerly the Emergency Care Research Institute)
- Blue Cross/Blue Shield/Kaiser Permanente Technology Evaluation Center (TEC)
- Hayes, Inc
- Diagnostic and Therapeutic Technology Assessment (DATTA)

Medical Experts

- External to Kaiser Permanente
- Internal to Kaiser Permanente

a degree of judgment always accompanies the INTC's recommendations. This situation is exemplified by bone marrow transplantation for breast cancer—a topic that has been placed on the INTC agenda 11 times since 1991. Most of the early Committee meetings resulted in recommendations that did not support bone marrow transplantation for breast cancer; later, in light of mounting pressure from advocacy groups, from news media, from legal challenges, and from legislative mandates, the INTC recommended bone marrow transplantation for breast cancer as a “medically appropriate alternative treatment in carefully selected patients.” In 1999, however, more definitive evidence was presented (at American Society for Clinical Oncology meetings in Atlanta, Georgia) to show that this approach to treating breast cancer is more dangerous and no more effective than conventional care. (Notwithstanding this evidence, however, a federal mandate still requires that federal employees receive coverage of bone marrow transplantation for breast cancer!)

Evidence-Based Decision Making

The previous example underscores the point that although evidence is the primary staple of the INTC's deliberations, the Committee cannot escape the need

to consider social, legal, ethical, emotional, and other factors when making its recommendations to the Regions. However, evidence is always the weightiest factor in the Committee's deliberations. To obtain this evidence, the Committee uses staff resources in both The Permanente Federation and in individual KP Regions. Table 3 displays these resources for gathering evidence.

Obtaining Further Information About the INTC

The proceedings of the INTC meetings are available online through the Permanente Knowledge Connection (<http://pkc.kp.org/>), accessible by all who work at Kaiser Permanente. The Web site contains additional information about the INTC, its topic list, individual members, how the INTC interacts with local KP Regional technology assessment committees, and contact information. Another extremely useful resource is the Technology Assessment and Guidelines (TAG) Unit based in the Department of Clinical Analysis in the Southern California Region. The TAG Unit works closely with both the INTC and The Permanente Federation to provide technology assessment assistance and guidelines to Permanente physicians throughout the Program. The Technology Assessment Inquiry Line can be reached by calling 626-405-5138 or through the KP e-mail system at Med-Technology-AGU,Scal. The Southern California Regional *Clinical Practice Guidelines Handbook* can be obtained by calling 626-405-6615. In the Northern California Region, TPMG New Medical Technology provides this resource for TPMG physicians and KPNC Administration and can be reached by calling Agnes Cronin at 510-987-3507.

Summary

The Kaiser Permanente's Interregional New Technologies Committee is an example of a Permanente-led, evidenced-based activity at the forefront of making decisions to integrate new technology into Permanente Practice.

The Committee is a national model for evaluating potential solutions in an environment constantly challenged with new technology and rising health care costs. ♦

Suggested Further Readings

1. Eddy DM editor. Clinical decision making from theory to practice: a collection of essays from The Journal of the American Medical Association. Boston: Jones and Bartlett Publishers; 1996.
2. Eddy DM. A manual for assessing health practices & designing practice policies: the explicit approach. Philadelphia: American College of Physicians; 1992.