Editors’ Comments

3  Tom Janisse, MD; Lee Jacobs, MD

Permanente Abstracts


The Lighter Side of Medicine

15  Life on the Sunnyside. Stephen Bachhuber, MD

Clinical Contributions

17  A Retrospective Review of 2076 Prostate Ultrasonograms in One Urology Practice.
   Richard B. Thompson, MD; Ira M. Fielding, MD, FACS

This article presents data about a large number of prostate ultrasound examinations done from 1989-1997 as a screen for prostate cancer. Almost all had biopsies, usually multiple ones. The article includes much information about relationships of traits (eg, prostate size, PSA levels, digital rectal exam results, age, and ultrasound data, singly and in combination) to likelihood of cancer.

24  Improvement in Quality-of-Life Indicators for Patients Suffering from Chronic Pain Syndromes. Philip J. Tuso, MD, FACP

This article describes the use of a special Internal Medicine Pain Clinic for the purpose of addressing physician and patient concerns about chronic pain management for nonmalignant conditions. Subjective questionnaire responses indicated improvement in most categories, including severity of pain. The author attributes much of this improvement to the supportive atmosphere of the special clinic.
27 Kaiser Permanente Medicine 50 Years Ago: Acute Catarrhal Hepatitis: A Study of Twenty-Two Cases, With Current Day Commentary. 
Phillip J. Raimondi, MD; Commentary by Leon Kaufman, MD

The reprinted 56-year-old article by an early Kaiser Permanente physician about infectious hepatitis describes clinical, laboratory, and pathology features as well as the scanty information then available about epidemiology, etiology, prognosis, and treatment. The accompanying current Commentary points out what was known and unknown in 1944 in the context of many features of current understanding of viral hepatitis.

34 The Medicine Wheel: Understanding “Problem” Patients in Primary Care. 
Louis T. Montour, MD, CM; CCFP; ABFP

A physician who is also a full-blooded Mohawk Indian describes how the Medicine Wheel concept from Native American culture has influenced his own life philosophy and his approach to patients. The universality of the Medicine Wheel concept and the benefits of its application when caring for patients are discussed in a highly personal way.

Health Systems

41 Permanente Medicine:
• A Conversation With Jed Weissberg, MD, On Defining Permanente Medicine
• The Principles of Permanente Medicine
• The Permanente Medicine Roundtable: Defining our Practice Principles
• The Permanente Medicine Map

The interview with Jed Weissberg, MD, the Principles, and the roundtable dialogue on defining our practice principles among Permanente leaders provide new insights critical to our culture of Permanente Medicine that, at times, are captured best in the context of multi-disciplinary conversation.

53 Culturally Competent Health Care. Oliver Goldsmith, MD

A cutting-edge commentary on a topic so important to all Permanente clinicians.

56 Notes From the Permanente Executive Conference—Improving the Health Care Value Equation: Access, the Care Experience and Resource Management. Jon Stewart

Readers will find this summation of a recent Permanente leadership conference to be interesting and complementary to the other articles on Permanente Medicine in this section.

62 A Functionally Interactive Intranet Clinical Information and Tracking System for Managing Pediatric Populations Affected with Chronic Diseases. 
Ronald E. Williams, MD; Enrique Gaete, Pharm D, MBA; John R. Moran, BSAM; Edward Curry, MD, FAAP

This paper illustrates the potential that present day technology can offer to assist both clinicians and patients.
External Affairs

68 Patients’ Bill of Rights? Or Wrongs?  Donald W. Parsons, MD

Don Parsons gives us his insight on what is happening with the Patients’ Bill of Rights Act of 1999 legislation now in conference committee. He looks at what the final version of the bill sent to the President might look like and what impact this legislation will have on the managed care industry and specifically Kaiser Permanente.

70 Mission: Cataract USA.  Cinde Breedlove

Since 1996, a dedicated group of Kaiser Permanente physicians, nurses, and clinical staff from Sacramento, California have donated their time to provide free cataract surgery to uninsured patients. This program has benefited the community by returning people to gainful employment and improving quality of life. The program has received a local business community award and many thanks from the grateful recipients of their expert care.

Book Reviews


74 “Death of the Good Doctor: Lessons from the Heart of the AIDS Epidemic”  by Kate Scannell, MD.  Keegan A. Checkett

75 “Primer of Epidemiology” by Gary D. Friedman, MD.  Robert F. Anda, MD, MS

Soul of the Healer

16 Elimination.  Brad Becker, MD

40 Laryngeal Tumor.  Stephen E. Beebe

71 Joe’s Place.  Michael Stine, MS, LPC

72 Clarity.  Brad Becker, MD

77 Out of the Closet—Why Gay and Lesbian Doctors Have an Important Role to Play in Healthcare.  Michael Horberg, MD

80 Ascent.  Brad Becker, MD

Announcements

78 Positions Available  The Fourth Interregional Symposium for NPs, PAs, CNMs, and CRNAs  Optimal Renal Care  Kaiser Permanente National Primary Care Conference

Index of Articles

81 An index of articles from The Permanente Journal, Volume 3.

CME

85 Complete this form to receive Category 1 Credit.

Instructions for Authors

87 We want you to submit your work. Look here to find out how.
Editors' Comments

High Tech—High Touch: Dilemma or Solution
Tom Janisse, Editor-in-Chief

Within this issue the perspective of several authors converge on the concept of “high touch”—the personal—in medicine. In a future issue we will focus on the rapidly expanding potential of “high tech”—the material—in medicine. To acknowledge the importance of high touch medicine, I would like to comment in this editorial on how this complements new high technology.

In “The Medicine Wheel,” Dr. Louis Montour, a Native American family practice physician with Colorado Permanente Medical Group, speaks about the importance of recognizing that “imbalance within the Wheel causes disorder and unsettles a person’s life; causes unwellness and ill health; and causes symptoms.” These imbalances appear usually in the emotional area, inpatients with chronic pain. He then helps them to restore their balance using the precepts of the Medicine Wheel. Dr Philip Tuso, Assistant Chief of Internal Medicine with the Southern California Medical Group, writes about a successful approach to chronic pain treatment that is based on the “expression of empathy to improve outcome.” Dr Oliver Goldsmith, Medical Director of the Southern California Permanente Medical Group, as he writes about “Culturally Competent Health Care,” notes that this “care requires a commitment from doctors and other caregivers to understand and be responsive to the different attitudes, values, verbal cues, and body language that people look for in a doctor’s office by virtue of their heritage.” In “Out of the Closet,” Dr. Michael Horberg, co-chair of The Permanente Medical Group’s HIV Provider and Therapeutic sub-committee, states that, “My gay and lesbian friends were finally getting the care and attention that they desperately yearned for but didn’t think they had gotten. And I in turn became increasingly attuned to their unique health needs and concerns.” Dr. Terri Stein, Director of Clinician-Patient Communication for The Permanente Medical Group, notes research that “patient satisfaction correlates significantly with patient perceptions about the provider’s humanism.”

As the practice of medicine becomes even more technologic, physicians will increasingly need to discover and use high touch to create balance in their approach to and treatment of their patients. Several examples of high touch and high tech are listed in Tables 1 and 2.

Belief-Based Medicine

Essential to appreciating the value of high touch in medicine is to understand that people—patients and physicians—act and behave based on their beliefs. These could be beliefs based on ancient wisdom, or they could be beliefs based on the conclusions of a randomized control trial (which we call science). Science does not always prevail in the mind of the patient. Is the high rate of patient “non-adherence” commonly reported in the medical literature actually due to non-congruence of belief systems? Physicians may not strongly consider patients’ personal or cultural beliefs because they are not scientifically verified, and thus consider them ineffectual and unimportant. It also may be that some physicians avoid these beliefs because it is personally threatening to leave the safety of training experiences and have to personally invoke their own life skills.

Furthermore, some physicians themselves may not believe medical science, or incorporate it, because it doesn’t fit their experience, practice, clinical judgment or clinical belief system. Here is a clinical example. Using the Acute Myocardial Infarction (AMI) guideline, thrombolytics are underused in eligible patients because of physicians’ perceptions about the risk of a cerebrovascular accident. Also, beta blockers are underutilized in the first 24 hours post AMI at least partially related to physicians’ belief that beta blockers are contraindicated in patients with CHF.

Future Physician Roles

Futurist Dr Ian Morrison cites new roles for physicians in the future in his recently published article in Annals of Internal Medicine called, “The Future of Physicians’ Time.” The eight roles he predicts are: 1. proceduralist, 2. knowledge navigator, 3. clinical data collector, 4. shaman, 5. health advisor, 6. diagnostician, 7. physician manager, and 8. quality assurance specialist. For the purpose of this high touch discussion I would like to excerpt quotes from his article about five of these roles and then expand and comment from my personal beliefs and experience.

In his new book, Health Care in the New Millennium, in a section about how the “old hard core”
managed care pioneers will still have something new to offer in the future, Dr Morrison says: “Kaiser Permanente is trying to prove a point rather than simply make money. And the point is that medicine can be organized, that systems of care can be coordinated, that investment in organization can yield systematic improvement in the way in which patients are managed, and that all this can be combined with compassion and high quality of physician-patient relationships. Coordination of care, integration of services, and compassion for the community have been the hallmarks of these organizations in the past.”

**Proceduralist**

Dr Morrison notes that, “The new proceduralists will be nanosurgeons, digital radiologists, invasive geneticists, and xenotransplant surgeons.” High tech will grow larger in our future, in some cases supplanting the procedures physicians perform now. With some procedures, invasive genetics for example, the personal, behavioral, emotional, and social dilemmas created by the availability of genome alteration will be extraordinary in complexity and consequence. Because of this, it will be necessary to implement more high touch processes like genetic and ethics counseling by the physician.

**Knowledge Navigator**

“Everyone will have access to all of the data that experts have,” Dr. Morrison notes. However, they may not understand it or how to apply it. As people have expanded choice through information, they will be confused about what to choose. People will increasingly need physicians to interpret for and advise them. The important difference for physicians is that they will less often be the source of the knowledge. From the other perspective, physicians will need to listen more attentively to patients’ advice on their personal, familial and community-related beliefs and preferences. The best decisions will come from this advisory relationship. This will require a higher touch—a relationship-based medicine.

**Clinical Data Collector**

Some of the clinical data that physicians now collect and interpret, for example auscultation and “the patient’s appearance and reported symptoms,” will be “replaced by diagnostic probes and sensors.” In any case, physicians will want to and need to collect more clinical data about the environmental conditions, psychological and behavioral patterns, and cultural beliefs and practices that patients express through their appearance and symptoms. These social, mind and spirit considerations can be key etiologic factors in medical conditions. This will require high touch skills and sensibilities.

**Shaman**

Many physicians would consider their role as a shaman far-fetched or inconceivable. Yet there is a long history of the “medicine man” fulfilling this function in the setting of a tribe or a small group or a small town. As Dr Morrison says, “Modern physicians often underestimate the power of their ancient role as a healer.” A lay person’s perspective here is highly valuable because physicians may not recognize how other people perceive and experience their practice of medicine. It may be easier to

<table>
<thead>
<tr>
<th>Table 1. New High Tech</th>
</tr>
</thead>
<tbody>
<tr>
<td>• E-based medicine</td>
</tr>
<tr>
<td>• Internet consumer-clinician communication</td>
</tr>
<tr>
<td>• Electronic decision-support smart systems</td>
</tr>
<tr>
<td>• Sensor technology</td>
</tr>
<tr>
<td>• Telemedicine</td>
</tr>
<tr>
<td>• Robotics</td>
</tr>
<tr>
<td>• Pharmacogenomics</td>
</tr>
<tr>
<td>• Defective gene substitution</td>
</tr>
<tr>
<td>• Minimally invasive surgery</td>
</tr>
<tr>
<td>• Semi-synthetic organ transplant</td>
</tr>
<tr>
<td>• In utero fetal surgery</td>
</tr>
<tr>
<td>• Positron Emission Tomography for cancer treatment</td>
</tr>
<tr>
<td>• Synthesis of population-based data customized for the individual</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 2. New High Touch</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Service quality with heart</td>
</tr>
<tr>
<td>• A view “Through the Patient’s Eyes”</td>
</tr>
<tr>
<td>• Patient empowerment</td>
</tr>
<tr>
<td>• Patient-physician shared decision-making</td>
</tr>
<tr>
<td>• Patient education as a powerful new medicine</td>
</tr>
<tr>
<td>• Culturally competent care</td>
</tr>
<tr>
<td>• Placebo effect as mind control of physiology</td>
</tr>
<tr>
<td>• Caring behaviors (comfort, reassure, empathy)</td>
</tr>
<tr>
<td>• Mind-directed genetic alteration</td>
</tr>
<tr>
<td>• Group clinic patient communities</td>
</tr>
<tr>
<td>• Patient to patient education</td>
</tr>
<tr>
<td>• Involved multidisciplinary teams that include patients</td>
</tr>
<tr>
<td>• Intuition as telepathy</td>
</tr>
<tr>
<td>• Intention and human touch to heal</td>
</tr>
</tbody>
</table>
appreciate this future role if physicians consider, as part of their treatment, a continuum from providing information and knowledge, to explaining and educating, to advising during shared decision-making, to counseling for grief, life change, or personal crisis, to praying or deep intention to heal. What is remarkable and hopeful is the extent to which this already occurs in the practice of physicians, though often unrecognized.

**Health Advisor and Wellness Coach**

The fifth future role is the health advisor and wellness coach. Dr. Morrison predicts that “the worried well could be soothed electronically through convenient and timely electronic information exchange with their physician.” While this may occur, I see the continued vital place for a physician’s soothing in person-to-person interactions when the physician listens attentively, carefully, and empathetically. Although this essential human connection happens now, it occurs in a “physical medicine” context, so that physicians view this activity from annoying and ineffective to threatening and personally overwhelming rather than of high value. In a “personal medicine” context this high touch interpersonal approach is “the value” many seek and regard as medical care. As Internet use produces healthcare at a distance, this further disconnection of patient from doctor may leave people at a personal or emotional distance too great to sustain the relationship necessary for advice, medical decisions, and caring behaviors.

**Conclusion**

New high technology is making an increasingly important contribution to the future of medicine. To counterbalance and complement its physical and emotional effects on patients and physicians, new high touch appears to be a solution to this dilemma, and one that rediscovers the person in the doctor and the patient.

---

**References**


**Bibliography**


Permanente Abstracts

The Progressive Cost of Complications in Type 2 Diabetes Mellitus

BACKGROUND: A substantial proportion of the costs of diabetes treatment arises from treating long-term complications, particularly cardiovascular and renal disease. However, little is known about the progressive cost of these complications. Firmer knowledge would improve diabetes modeling and might increase the financial and organizational support for the prevention of diabetic complications.

METHODS: We analyzed nine years of clinical data on 11,768 members of a large group-model health maintenance organization who had probable type 2 diabetes mellitus. We ascertained the presence of cardiovascular and renal complications, staged the members’ progression, and estimated their incremental costs by stage.

RESULTS: We found no significant differences between men and women in the prevalence or staging of complications. Per-person costs increased over baseline ($2033) by more than 50% ($1087) after initiation of cardiovascular drug therapy and/or use of a cardiologist, and by 360% ($7352) after a major cardiovascular event. Abnormal renal function increased diabetes treatment costs by 65% ($1337); advanced renal disease by 195% ($3979); and end-stage renal disease by 771% ($15,675). Both cardiovascular and renal diseases were more common among older subjects, but age did not affect the additional costs of these complications. Women had substantially higher medical care costs after controlling for age and presence of complications. Incremental cost estimates based solely on “labeled” events significantly underestimate true incremental cost.

CONCLUSIONS: In an aggregate population, the greatest cost savings would be achieved by preventing major cardiovascular events. For individuals, the greatest savings would be achieved by preventing progression to stage 3 renal disease.

Type 2 Diabetes: Incremental Medical Care Costs During the First Eight Years After Diagnosis

OBJECTIVE: To describe and analyze the time course of medical care costs caused by type 2 diabetes from the time of diagnosis through the first eight postdiagnostic years.

Reduction of Vertebral Fracture Risk in Postmenopausal Women with Osteoporosis Treated with Raloxifene: Results from a Three-Year Randomized Clinical Trial. Multiple Outcomes of Raloxifene Evaluation (MORE) Investigators [See Comments]

CONTEXT: Raloxifene hydrochloride, a selective estrogen receptor modulator, prevents bone loss in postmenopausal women, but whether it reduces fracture risk in these women is not known.

OBJECTIVE: To determine the effect of raloxifene therapy on risk of vertebral and nonvertebral fractures.
DESIGN: The Multiple Outcomes of Raloxifene Evaluation (MORE) study, a multicenter, randomized, blinded, placebo-controlled trial.

SETTING AND PARTICIPANTS: A total of 7705 women aged 31 to 80 years in 25 countries who had been postmenopausal for at least two years and who met World Health Organization criteria for having osteoporosis. The study began in 1994 and had up to 36 months of follow-up for primary efficacy measurements and nonserious adverse events and up to 40 months of follow-up for serious adverse events.

INTERVENTIONS: Participants were randomized to 60 mg/d or 120 mg/d of raloxifene or to identically appearing placebo pills; in addition, all women received supplemental calcium and cholecalciferol.

MAIN OUTCOME MEASURES: Incident vertebral fracture was determined radiographically at baseline and at scheduled 24- and 36-month visits. Nonvertebral fracture was ascertained by interview at six-month-interim visits. Bone mineral density was determined annually by dual-energy x-ray absorptiometry.

RESULTS: At 36 months of the evaluable radiographs in 6828 women, 503 (7.4%) had at least one new vertebral fracture, including 10.1% of women receiving placebo, 6.6% of those receiving 60 mg/d of raloxifene, and 5.4% of those receiving 120 mg/d of raloxifene. Risk of vertebral fracture was reduced in both study groups receiving raloxifene (for 60-mg/d group: relative risk [RR], 0.7; 95% confidence interval [CI], 0.5-0.8; for 120-mg/d group: RR, 0.5; 95% CI, 0.4-0.7). Frequency of vertebral fracture was reduced both in women who did and did not have prevalent fracture. Risk of nonvertebral fracture for raloxifene vs placebo did not differ significantly (RR, 0.9; 95% CI, 0.8-1.1 for both raloxifene groups combined). Compared with placebo, raloxifene increased bone mineral density in the femoral neck by 2.1% (60 mg) and 2.4% (120 mg) and in the spine by 2.6% (60 mg) and 2.7% (120 mg) P<0.001 for all comparisons). Women receiving raloxifene had increased risk of venous thromboembolus vs placebo (RR, 3.1; 95% CI, 1.5-6.2). Raloxifene did not cause vaginal bleeding or breast pain and was associated with a lower incidence of breast cancer.

CONCLUSIONS: In postmenopausal women with osteoporosis, raloxifene increases bone mineral density in the spine and femoral neck and reduces risk of vertebral fracture.

Copyright 1999, American Medical Association.

Pre-Enrollment Diets of Dietary Approaches to Stop Hypertension Trial Participants. DASH Collaborative Research Group


A large body of evidence suggests that several nutrients are related to blood pressure. Less is known about the eating patterns of special populations, such as those at risk for hypertension, or how demographic factors affect the diets of these populations. This article characterizes the usual diets of participants before they enrolled in the Dietary Approaches to Stop Hypertension (DASH) trial. During screening for DASH, 380 participants completed the National Cancer Institute food frequency questionnaire. Nutrient and food group intake, the Keys score (a measure of a diet’s atherogenicity), and the Diet Quality Index were estimated from the food frequency questionnaire. The effects of age, sex, race, baseline weight, and education on these dietary factors were assessed among DASH participants and compared with similar data from the Third National Health and Nutrition Examination Survey and other published reports. Among DASH participants, African-Americans reported lower intakes of dairy products (P < .001), calcium (P < .001), and magnesium (P < .05) than did whites. Older women reported greater intakes of calcium, magnesium, and potassium (all P < .05) and less fat (P < .05) than did younger women. Older men consumed fewer servings of fruits (P < .03), less vitamin C (P < .05), and had a higher Keys score (P < .05) than did younger men. Heavier (body mass index > or = 25) participants reported lower intakes of protein and potassium, but higher fat and energy intakes (all P < .05). Taken together, these data show that younger, overweight African-American women have the least healthful diets, because they consume more atherogenic foods and fewer of the nutrients related to decreased blood pressure. Overall Diet Quality Index scores did not differ between African-American and white participants. Despite differences in dietary assessment methods between the population samples of DASH and the Third National Health and Nutrition Examination Survey, within each population sample, patterns of micronutrient intake were similar between African-American and white participants.

Women's Provider Preferences for Basic Gynecology Care in a Large Health Maintenance Organization

To examine women's preferences for the type and sex of the provider of basic gynecological services and the correlates of these preferences, we mailed a cross-sectional survey to 8400 women in a large group model health maintenance organization (HMO) in northern California, with a response rate of 73.6%.

Four questions asked women the type (obstetrician/gynecologist, nurse practitioner, or primary care physician) and sex of provider who performed their last pelvic examination and their preferences in type and sex of provider for these examinations. This was a random sample of female HMO members 35-85 years of age who were enpaneled with a primary care physician from one of three categories: family practitioner, general internist, or subspecialist. Of the 5104 respondents who received their last pelvic examination at Kaiser Permanente, 56% had seen a gynecologist, 26% a nurse practitioner, and only 18% their own primary care physician for the examination. Of these women, 60.3% reported preferring a gynecologist for basic gynecology care, 12.6% preferred a nurse practitioner, 15.3% preferred their own primary care physician, and 13.8% had no preference. Patients of family practitioners were more likely to prefer their own primary care practitioner than patients of other types of doctors. The strongest independent predictor of preferring a gynecologist over the primary care physician was having seen a gynecologist for the last pelvic examination (OR = 28.3, p < 0.0001). Other independent predictors of preferring a gynecologist were younger age, higher education and income, and having a male primary care physician. Of respondents, 52.2% preferred a female provider for basic gynecological care, and 42.0% had no preference for the sex of the provider. Preferring a female provider was strongly and independently associated with lower income, higher education, nonwhite race, having a male primary care physician, having an older primary care physician, and having seen a female provider at the last pelvic examination. In this HMO, a majority of women reported a preference for seeing an obstetrician/gynecologist for their routine gynecological care, despite having a primary care physician. This most likely reflects the strong influence of previous patient experience and that familiarity with a particular type of provider leads to preferences for that type. This medical group’s structure probably also affects preferences, as in this HMO, primary care physicians can be discouraged from performing pelvic examinations. Many women do prefer female providers for pelvic examinations, but a large percentage have no preference. These women often see male providers for basic gynecological care. As managed care places increasing emphasis on providing integrated, comprehensive primary care, this apparent preference for specialty gynecological care will require further study.

The Diagnosis and Classification of Gestational Diabetes Mellitus: Is It Time to Change Our Tune?

OBJECTIVE: This study was designed to determine the impact on our population of adopting the Carpenter and Coustan criteria for gestational diabetes mellitus in place of the currently used National Diabetes Data Group criteria, to review the evidence supporting replacement of the National Diabetes Data Group criteria with the Carpenter and Coustan criteria, and to propose analogous diagnostic criteria for diabetes in pregnant and nonpregnant women.

STUDY DESIGN: The National Diabetes Data Group criteria and the proposed Carpenter and Coustan criteria were both used to retrospectively review medical records of patients screened for gestational diabetes mellitus during 1995 and 1996, in the Kaiser Permanente Northwest Division. Computerized search was performed on automated data systems, and software was used for statistical analyses. A MEDLINE review of relevant literature was conducted.

RESULTS: Of 8857 pregnant women screened for gestational diabetes in 1995 and 1996, 284 (3.21%) met the National Diabetes Data Group criteria, whereas 438 (4.95%) met the Carpenter and Coustan criteria. We estimate that in our population, use of the Carpenter and Coustan criteria, in 1996, could at best have reduced the prevalence of infants weighing >/=4000 g from 17.1% to 16.9% and the prevalence of infants weighing >/=4500 g from 2.95% to 2.91%.

CONCLUSIONS: Replacing the National Diabetes Data Group criteria with the Carpenter and Coustan criteria would increase by 54% the number of pregnant women with a diagnosis of gestational diabetes mellitus and would also increase costs, while only minimally affecting prevalence of infant macrosomia. The
medical literature does not provide compelling evidence for adopting the Carpenter and Coustan criteria. Standardization of both measurement of venous plasma glucose level and diagnostic criteria for gestational diabetes mellitus is an important goal. Parallel criteria for diagnosis and classification of diabetes mellitus in pregnant and nonpregnant women should be developed.

**Safety and Immunogenicity of Heptavalent Pneumococcal CRM197 Conjugate Vaccine in Infants and Toddlers**

Shinefield HR; Black S; Ray P; Chang I; Lewis N; Fireman B; et al; Pediatr Infect Dis J 1999 Sep;18(9):757-63.

**OBJECTIVES**: The objectives of this study were (1) to determine the safety and immunogenicity of heptavalent pneumococcal CRM197 conjugate (PNCRM7) vaccine in infants and (2) to determine the effect of concurrent hepatitis B immunization during the primary series and the effect of concurrent diphtheria and tetanus toxoid and acellular pertussis [DTaP (ACEL-IMUNE)] and conjugate CRM197 Haemophilus influenzae type b [HbOC (HibTITER)] immunization at time of the booster dose on the safety and immunogenicity of PNCRM7 and these other concurrently administered vaccines.

**METHODS**: This was a randomized double-blinded study in 302 healthy infants in the Northern California Kaiser Permanente (NCKP) Health Plan. Infants received either PNCRM7 vaccine or meningococcal group C conjugate vaccine as a control at two, four, and six months of age and a booster at 12 to 15 months of age. Study design permitted the evaluation of immunology and safety of concurrent administration of routine vaccines. Antibody titers were determined on blood samples drawn before and one month after the primary series and the booster dose.

**RESULTS**: After the third dose of PNCRM7, geometric mean concentrations (GMCs) ranged from 1.01 for serotype 9V to 3.72 microg/mL for serotype 14. More than 90% of all subjects had a post-third dose titer of > or =0.15 microg/mL for all serotypes, and the percentage of infants with a post-third dose titer of > or =1.0 microg/mL ranged from 51% for type 9V to 89% for type 14. After the PNCRM7 booster dose, the GMCs of all seven serotypes increased significantly over both post-Dose 3 and pre-Dose 4 antibody levels. In the primary series, there were no significant differences in GMCs of pneumococcal antibodies between the subjects given PNCRM7 alone or concurrently with hepatitis B vaccine. At the toddler dose, concurrent administration of PNCRM7 and DTaP and HbOC resulted in a near conventional threshold for statistical significance of a post-Dose 4 GMC for serotype 23F [alone 6.75 microg/mL vs. concurrent 4.11 microg/mL (P = 0.057)] as well as significantly lower antibody GMCs for H. influenza polyribosylribitol phosphate, diphtheria toxoid, pertussis toxin, and filamentous hemagglutinin. For all antigens, there were no differences between study groups in defined antibody titers that are considered protective.

**CONCLUSION**: We conclude that PNCRM7 vaccine was safe and immunogenic. When this vaccine was administered concurrently at the booster dose with DTaP and HbOC vaccines, lower antibody titers were noted for some of the antigens when compared with the antibody response when PNCRM7 was given separately. Because the GMCs of the booster responses were all generally high and all subjects achieved similar percentages above predefined antibody titers, these differences are probably not clinically significant.

**Experience Using Radio Frequency Laptops to Access the Electronic Medical Record in Exam Rooms**

Dworkin LA; Krall M; Chin H; Robertson N; Harris J; Hughes J; Proc AMIA Symp 1999 Nov 6;741-4.

Kaiser Permanente Northwest evaluated the use of laptop computers to access our existing comprehensive Electronic Medical Record in exam rooms via a wireless radiofrequency (RF) network. Eleven of 22 clinicians who were offered the laptops successfully adopted their use in the exam room. These clinicians were able to increase their exam room time with the patient by almost four minutes (25%), apparently without lengthening their overall work day. Patient response to exam room computing was overwhelmingly positive. The RF network response time was similar to the hardwired network. Problems cited by some laptop users and many of the eleven non-adopters included battery issues, different equipment layout and function, and inadequate training. IT support needs for the RF laptops were two to four times greater than for hardwired desktops. Addressing the reliability and training issues should increase clinician acceptance, making a successful general roll-out for exam room computing more likely.
Rehospitalization in the First Two Weeks After Discharge from the Neonatal Intensive Care Unit

Escobar GJ; Joffe S; Gardner MN; Armstrong MA; Folck BF; Carpenter DM; Pediatrics 1999 Jul;104(1):e2.

**Background:** High-risk newborns are known to have higher than average utilization of services after discharge from the neonatal intensive care unit (NICU). Most studies on this subject report aggregate data over periods ranging from one to three years postdischarge. Little is known about events that are temporally close to NICU discharge.

**Objectives:** To characterize rehospitalizations within the first two weeks after discharge from six community NICUs.

**Methods:** We scanned electronic databases and reviewed the charts of rehospitalized infants from six NICUs in the Kaiser Permanente Medical Care Program. We subdivided infants into five groups based on gestational age (GA) and birth hospitalization length of stay (LOS): 1) >/=37 weeks’ GA with <4 days LOS (n = 2593); 2) >/=37 weeks’ GA with >/=4 days’ LOS (n = 1133); 3) from 33 to 36 weeks’ GA with <4 days’ LOS (n = 545); 4) from 33 to 36 weeks’ GA with >/=4 days’ LOS (n = 1196); and 5) <33 weeks’ GA (n = 587). We performed bivariate and multivariate analyses to identify predictors that might be useful for practitioners.

**Results:** There were 6054 newborns discharged alive from the six study NICUs between August 1, 1992 and December 31, 1995, and 99.5% of these infants remained in the health plan during the two weeks after NICU discharge. The overall rehospitalization rate was 2.72%, which is 20% higher than the rate among healthy term newborns in the Kaiser Permanente Medical Care Program (2.26%). The two most common reasons for rehospitalization were jaundice (62/165, 37.6%) and feeding difficulties (25/165, 15.2%). Infants with 33 to 36 weeks’ GA and <4 days’ LOS were rehospitalized at a significantly higher rate than were all other infants (5.69%); 71% of infants in this group were rehospitalized for jaundice. The following variables predicted rehospitalization in multivariate models: <33 weeks’ GA (adjusted OR [AOR]: 1.88; 95% CI: 1.10-3.21), from 33 to 36 weeks’ GA with <96 hours’ LOS (AOR: 2.94; 95% CI: 1.87-4.62), and birth at facility B, which had the highest rehospitalization rate of the six facilities (AOR: 1.92; 95% CI: 1.39-2.65).

**Conclusions:** The rate of rehospitalization among NICU graduates is higher than among healthy term infants. Most of the rehospitalizations among infants with from 33 to 36 weeks’ GA and <4 days’ LOS are for illnesses that are not life-threatening. Collaborative studies and new process and outcomes measures are needed to assess the effectiveness of follow-up strategies in high-risk newborns.

Continuation of Postmenopausal Hormone Replacement Therapy in a Large Health Maintenance Organization: Transdermal Matrix Patch Versus Oral Estrogen Therapy


**Objective:** To determine possible differences in continuation of postmenopausal estrogen replacement therapy among women initiating treatment with transdermal estradiol versus those initiating treatment with oral estrogen.

**Study Design:** A retrospective database search.

**Patients and Methods:** We analyzed estrogen use among 45- to 74-year-old women who filled index prescriptions for estrogen during 1996 for either once-a-week transdermal estradiol or daily oral estrogen. Prescription use was analyzed separately for each of two groups: 276 hysterectomized women who filled prescriptions for estrogen alone (ERT) and 4182 women who filled prescriptions for medroxyprogesterone acetate (MPA) with estrogen (HRT) on the same day.

**Results:** Risk of discontinuing therapy after 12 months ranged from 59% to 76% among the four subgroups: ERT with unopposed transdermal estradiol; ERT with unopposed oral estrogen; HRT with MPA-opposed transdermal estradiol; and HRT with MPA-opposed oral estrogen. The relative risk (RR) of discontinuation was significantly greater among women starting HRT with transdermal estradiol than among women starting oral estrogen (RR = 1.5; 95% confidence interval [CI] = 1.3 to 1.8). RR of discontinuation among women starting ERT with transdermal estradiol compared with women starting oral estrogen therapy was 1.3 (95% CI = 1.0 to 1.8).

**Conclusions:** Approximately two of three women who start either ERT or HRT discontinue therapy within a year, regardless of hysterectomy status. Furthermore, women who start ERT or HRT with a transdermal estradiol system are more likely to discontinue therapy.

Personal Perspective on Low-Dosage Estrogen Therapy for Postmenopausal Women
Ettinger B; Menopause 1999 Fall;6(3):273-6

OBJECTIVE: As evidenced by results from recent clinical trials and epidemiological studies that have examined the physiological and clinical effects of low levels of estradiol, it is now time to replace the widely held belief that less than the standard dosage of estrogen is without benefit.

DESIGN: Review of literature and personal experience.

RESULTS: Studies indicate that low-dosage estrogen can relieve vasomotor symptoms, can prevent bone loss, and may reduce the risk of coronary heart disease. However, to achieve these health benefits, long-term estrogen use is required. Women who use low dosages of estrogens are less likely to have unacceptable side effects, such as irregular bleeding, heavy bleeding, or breast tenderness. Thus, long-term continuance of hormone replacement therapy (HRT) may be improved if lower dosages are given, particularly if the HRT regimen is tailored to the needs of the patient.

CONCLUSIONS: Although standard-dosage estrogen remains the “gold standard” for HRT, having a low dosage as an alternative regimen can be useful. Attention of clinical researchers should focus on the effects of low-dosage estrogen on osteoporotic fractures and other health outcomes.

Occupational Exposure to Antineoplastic Agents: Self-Reported Miscarriages and Stillbirths among Nurses and Pharmacists

Insult to the germ cells of an ovum or sperm prior to pregnancy as well as exposures to a fetus during pregnancy can affect the outcome of a pregnancy. Antineoplastic agents are mutagenic and teratogenic, so the potential effects of exposure on reproduction are of concern to the workers who handle them. This study investigates pregnancy loss associated with occupational exposures to antineoplastic drugs by comparing rates of spontaneous abortion and stillbirths for pregnancies without antineoplastic exposure and exposed pregnancies in which the pregnant woman or the father handled antineoplastic agents either before or during the pregnancy. A total of 7094 pregnancies of 2976 pharmacy and nursing staff were examined. After age during pregnancy, prior gravidity, maternal smoking during the pregnancy, and occurrence of a spontaneous abortion or stillbirth in a prior pregnancy were controlled for, exposure of the mother to or the handling of antineoplastic agents during the pregnancy was associated with a significantly increased risk of spontaneous abortion (odds ratio = 1.5; 95% confidence interval, 1.2 to 1.8) and combined risk of spontaneous abortion and stillbirth (odds ratio = 1.4; 95% confidence interval, 1.2 to 1.7) but not stillbirth alone. Among the wives of exposed men, too few stillbirths occurred to allow analysis. However, for spontaneous abortion and any loss, the patterns of increased risk were similar to those seen for women, although the odds ratios were not statistically significant.

Barbiturates and Lung Cancer: a Re-Evaluation

BACKGROUND: Barbiturates, particularly phenobarbital, have been shown to be a tumour promoter in animal experiments and were found to be associated with increased risk of lung cancer in our cohort follow-up study to screen pharmaceuticals for possible carcinogenic effects. Sixteen more years of follow-up have accumulated permitting a more detailed evaluation of this association.

METHODS: In all, 10,213 subscribers of the Kaiser Permanente Medical Care Program who received barbiturates between 1969 and 1973 from its San Francisco pharmacy were followed up through 1992 and their incidence of lung cancer at biennial intervals was compared with what was expected based on the experience of the entire pharmacy cohort (143,594). Smoking-habit data were available on about half of the barbiturate users and were used to adjust for cigarette smoking in both the observed/expected analysis and in Cox proportional hazards analysis.

RESULTS: The initially elevated standard morbidity ratio of 1.55 (95% CI: 1.25-1.91) with three to seven years of follow-up gradually decreased and stabilized at about 1.3 after 11-15 years of follow-up. This trend for diminishing relative risk over time was more pronounced among the never smokers but their initial excess risk was not statistically significant due to small numbers. A dose-response trend was observed, based on the number of prescriptions dispensed. Analytical control for cigarette smoking reduced but did not eliminate either the association or the dose-response trend. Most of the barbiturate-associated cases in never smokers were women and the predominant histological type was adenocarcinoma.
CONCLUSIONS: These findings from up to 23 years of follow-up are not conclusive because of the continuing small number of never smokers who developed lung cancer. However, they strengthen and refine previous observations of a barbiturate-lung cancer association, which is probably not fully explained by confounding by cigarette smoking. The diminution of excess risk over time is consistent with a tumour promoter effect. Findings among the never smokers suggest that this possible effect may be greatest on adenocarcinomas in women.

Excess Maternal Transmission of Type 2 Diabetes. The Northern California Kaiser Permanente Diabetes Registry

Karter AJ; Rowell SE; Ackerson LM; Mitchell BD; Ferrara A; Selby JV; et al; Diabetes Care 1999 Jun;22(6):938-43.

OBJECTIVE: To assess excess maternal transmission of type 2 diabetes in a multiethnic cohort. Previous studies have reported higher prevalence of diabetes among mothers of probands with type 2 diabetes than among fathers. This analysis is vulnerable to biases, and this pattern has not been observed in all populations or races.

RESEARCH DESIGN AND METHODS: We assessed evidence for excess maternal transmission among 42,533 survey respondents with type 2 diabetes (probands) by calculating the prevalence of diabetes in their siblings and offspring. To assess data quality, we evaluated completeness of family history data provided. Accuracy of family information reported by probands was also evaluated by comparing survey responses in a subsample of 206 probands with family histories modified after further interviews with relatives.

RESULTS: Siblings (n = 60,532) of probands with affected mothers had a greater prevalence of diabetes (20%) than those with affected fathers (17%) (P < 0.001 for adjusted odds ratios). Prevalence of diabetes was higher among the offspring (n = 72,087) of female (3.4%) versus male (2.2%) probands (P < 0.001 for adjusted odds ratios). These patterns were evident in all races and both sexes; however, the effect size was clinically insignificant in African-Americans and male offspring. In general, probands provided more complete data about diabetes status for the maternal arm of the pedigree than the paternal arm. Completeness of knowledge was not related to proband sex, but was related to education.
and race, and inversely to age. Accuracy of proband-reported family history was consistently good (kappa statistics generally > 0.70).

**Conclusions:** Excess maternal transmission was observed in all races and both sexes, although the size of the excess was negligible in African-Americans and male offspring. Potential reporting and censoring biases are discussed.

**The Sensitivity and Specificity of Forecasting High-Cost Users of Medical Care**

Meenan RT; O’Keeffe-Rosetti C; Hornbrook MC; Bachman DJ; Goodman MJ; Fishman PA; et al; Med Care 1999 Aug;37(8):815-23.

**Objectives:** This study compares the ability of three risk-assessment models to distinguish high and low expense-risk status within a managed care population. Models are the Global Risk-Assessment Model (GRAM) developed at the Kaiser Permanente Center for Health Research; a logistic version of GRAM; and a prior-expense model. GRAM was originally developed for use in adjusting Medicare payments to health plans.

**Methods:** Our sample of 98,985 cases was drawn from random samples of memberships of three staff/group health plans. Risk factor data were from 1992, and expenses were measured for 1993. Models produced distributions of individual-level annual expense forecasts (or predicted probabilities of high expense-risk status for logistic) for comparison to actual values. Prespecified “high-cost” thresholds were set within each distribution to analyze the models’ ability to distinguish high and low expense-risk status. Forecast stability was analyzed through bootstrapping.

**Results:** GRAM discriminates better overall than its comparators (although the models are similar for policy-relevant thresholds). All models forecast the highest-cost cases relatively well. GRAM forecasts high expense-risk status better than its comparators within chronic and serious disease categories that are amenable to early intervention but also generates relatively more false positives within these categories.

**Conclusions:** This study demonstrates the potential of risk-assessment models to inform care management decisions by efficiently screening managed care populations for high expense-risk. Such models can act as preliminary screens for plans that can refine model forecasts with detailed surveys. Future research should involve multiple-year data sets to explore the temporal stability of forecasts.

**Uterine Rupture Associated with the Use of Misoprostol in the Gravid Patient with a Previous Cesarean Section**

Plaut MM; Schwartz ML; Lubarsky SL; Am J Obstet Gynecol 1999 Jun;180(6 Pt 1):1535-42.

**Objective:** Our purpose is to report our experience with uterine rupture in patients undergoing a trial of labor after previous cesarean delivery in which labor was induced with misoprostol. The literature on the use of misoprostol in the setting of previous cesarean section is reviewed.

**Study Design:** This report was based on case reports, a computerized search of medical records, and literature review.

**Results:** Uterine rupture occurred in five of 89 patients with previous cesarean delivery who had labor induced with misoprostol. The uterine rupture rate for patients attempting vaginal birth after cesarean section was significantly higher in those who received misoprostol, 5.6%, than in those who did not, 0.2% (1/423, P =.0001). Review of the literature reveals insufficient data to support the use of misoprostol in the patient with a previous cesarean delivery.

**Conclusion:** Misoprostol may increase the risk of uterine rupture in the patient with a scarred uterus. Carefully controlled studies of the risks and benefits of misoprostol are necessary before its widespread use in this setting.

**A Low-Cost Approach to Prospective Identification of Impending High Cost Outcomes**

Roblin DW; Juhn PI; Preston BJ; Della Penna R; Feitelberg SP; Khoury A; et al; Med Care 1999 Nov;37(11):1155-63.

**Objectives:** The overall objective of this study was to define and evaluate patterns of use of medical services in the care of patients with chronic illness that represent circumstances which, if modified, might lead to reduction in risk of acute-level care.

**Methods:** This was a retrospective observational study. The study population consisted of Kaiser Permanente enrollees at four sites during January 1993 through June 1995, who were 20 to 64 years of age and had two of three chronic diseases (diabetes, circulatory disorders, obstructive pulmonary disorders). Using logistic regression, the effect of primary care visit patterns and therapeutically risky drug combinations on likelihood of hospital admission in a subsequent 3-month period is adjusted.
for age, gender, and disease state in the prior 12-month period.

**RESULTS:** Enrollees with visits to three or more different primary care physicians were 46% more likely to be admitted than expected (P < 0.01) according to their age, gender, and disease state, and those with therapeutically risky drug combinations were 34% more likely to be admitted (P < 0.01).

**CONCLUSIONS:** The risk adjustment models evaluated in this study defined care processes associated with increased risk of subsequent acute-level services. Those processes may represent nascent acute disease states or suboptimal organization of care delivery. The results of these models can be used to inform changes in organization and delivery of outpatient care that might improve patient outcomes.

**When Is Fasting Really Fasting? The Influence of Time of Day, Interval After a Meal, and Maternal Body Mass on Maternal Glycemia in Gestational Diabetes**


**OBJECTIVE:** The object of the study was to determine whether time of day, interval after a standard meal, and maternal body mass influence plasma glucose concentrations in women with gestational diabetes mellitus.

**STUDY DESIGN:** Identical mixed meals were administered on two separate occasions one week apart to 30 women with dietarily treated gestational diabetes and pregnancies between 28 and 38 weeks' gestation. One meal was administered at 7 AM (morning meal) and the other was administered at 9 PM (evening meal), each after a fast of ≥5 hours. The order of the meals (morning first versus evening first) was assigned randomly. Sixteen of the women had a body mass index ≥27 kg/m(2) (overweight) and 14 women had a body mass index <27 kg/m(2) (lean). Venous plasma concentrations of glucose, insulin, free fatty acids, beta-hydroxybutyrate, and bound and free cortisol were measured hourly for nine hours after each of the test meals.

**RESULTS:** When all women were considered together glucose concentrations after the morning meal were significantly greater at one hour, were not different at two hours, and were significantly lower from three through nine hours postprandially than those at corresponding times after the evening meal. Plasma betahydroxybutyrate and free fatty acid concentrations were higher between five and nine hours after the morning meal than at the same times after the evening meal. Total and free cortisol levels were higher for the first seven hours after the morning feeding, reflecting known diurnal variation in cortisol concentrations. Overweight patients' glucose values were significantly greater than those of lean subjects during the last four hours of the overnight fast.

**CONCLUSIONS:** Among women with dietarily treated gestational diabetes the glucose concentrations were significantly higher from three to nine hours after an evening meal, whereas suppression of free fatty acids and beta-hydroxybutyrate was less sustained after a morning feeding. The mechanisms underlying these differences remain to be determined but may involve diurnal influences of counterregulatory hormones. The relationships between measurements of maternal glycemia and maternal and perinatal outcomes in pregnancies complicated by gestational diabetes may be clarified by establishing a uniform duration of a fast and by developing meal-specific preprandial and postprandial maternal glucose targets for these patients.

**Dietary Approaches to Stop Hypertension: Rationale, Design, and Methods.**

DASH Collaborative Research Group


Epidemiologic studies across societies have shown consistent differences in blood pressure that appear to be related to diet. Vegetarian diets are consistently associated with reduced blood pressure in observational and interventional studies, but clinical trials of individual nutrient supplements have had an inconsistent pattern of results. Dietary Approaches to Stop Hypertension (DASH) was a multicenter, randomized feeding study, designed to compare the impact on blood pressure of three dietary patterns. DASH was designed as a test of eating patterns rather than of individual nutrients in an effort to identify practical, palatable dietary approaches that might have a meaningful impact on reducing morbidity and mortality related to blood pressure in the general population. The objectives of this article are to present the scientific rationale for this trial, review the methods used, and discuss important design considerations and implications.

Association of Asthma Control with Health Care Utilization and Quality of Life

Vollmer WM; Markson LE; O’Connor E; Sanocki LL; Fitterman L; Berger M; et al; Am J Respir Crit Care Med 1999 Nov;160(5 Pt 1):1647-52.

Asthma severity and level of asthma control are two related, but conceptually distinct, concepts that are often confused in the literature. We report on an index of asthma control developed for use in population-based disease management. This index was measured on 5181 adult members of a large health maintenance organization (HMO), as were various self-reported measures of health care utilization (HCU) and quality of life (QOL). A simple index of number of control problems, ranging from none through four, exhibited marked and highly significant cross-sectional associations with self-reported HCU and with both generic and disease-specific QOL instruments, suggesting that each of the four dimensions of asthma control represented by these problems correlates with clinically significant impairment. Qualitatively similar results were found for control problems assessed relative to the past month and relative to the past year. Asthma control is an important “vital sign” that may be useful both for population-based disease management as well as for the management of individual patients.

The Lighter Side of Medicine
“Elimination” by Brad Becker, MD

Our cover artist for this issue, Brad, uses a Nikon 6006 to capture his images. To create his digitally manipulated images, he scans the prints onto a photo CD and imports the images into Photoshop. The image above was created by cloning background elements to cover the elephant. This image is a comment on the fragility of our ecosystem. More of Brad’s work can be seen on the cover, as well as pages 72 and 80.
Prostate cancer is the most common cancer in men, the second most common cancer-related cause of death, and has received a great deal of media attention. However, considerable controversy surrounds indications for screening asymptomatic patients for prostate cancer, and indications for urology referral (ie, in response to abnormal findings) have generated confusion.

We present an analysis of our experience with ultrasound evaluation of more than 2000 men for prostate carcinoma by the urology department in a staff-model health maintenance organization (HMO) whose cancer detection rate has averaged about 30%. This review suggests the clinical significance of using a number of parameters in evaluating the likelihood of cancer. These parameters are age; prostate volume; level of serum prostate-specific antigen (PSA), results of digital rectal and ultrasound examinations; and combined results of digital rectal examination, transurethral ultrasonography, and PSA analysis. We also present our experience with repeat biopsies.

Data are given in tabular form for easy reference by urologists and by primary care physicians. These data may help physicians to adjust their level of suspicion of cancer for each patient. For most cases in which prostate ultrasonography is done, we recommend that at least six biopsies be done.

Introduction

For men with suspicious results of digital rectal examination (DRE) or elevated serum levels of prostate-specific antigen (PSA), transrectal ultrasonography (TRUS) of the prostate with ultrasound-guided needle biopsy is the preferred procedure for diagnosis of prostate cancer. About 250,000 Health Plan members are served at the Kaiser Permanente Medical Center in Hayward and Fremont, California. Two thousand seventy-six men had prostate ultrasonography in the urology department between November 1989 and December 1997 to detect prostate cancer. We review the results of these 2076 ultrasound examinations to illustrate the evaluation of men in this clinical situation at a closed-panel HMO practice.

Materials and Methods

All ultrasound examinations were done using the Kretz Combison 310 instrument. Biopsy specimens were taken by using an 18-gauge, spring-loaded needle biopsy gun. Patients were given preoperative antibiotic prophylaxis, which consisted of two 500-mg doses of ciprofloxacin (one dose given the night before and one dose given on the morning of the procedure), and a Fleet enema given two hours before TRUS was done. After initially taking biopsy specimens from sites selected on the basis of suspicious ultrasound or DRE findings, we soon altered our technique to take biopsy specimens from at least six zones of the prostate selected by using a sextant or grid pattern as well as additional biopsy specimens taken from suspect sites. For patients who had larger prostate volume and for patients who had repeat TRUS of the prostate in response to persistently rising PSA levels measured after negative initial biopsy results, eight or ten biopsy specimens were taken from representative zones of the prostate. This change in technique has increased our cancer detection rate substantially.

Results

In the early phase of our experience with prostate ultrasonography, biopsy was done less frequently, documentation was less careful, and some patients did not have PSA level or prostate volume recorded. In addition, as noted above, biopsy (when done) was done only at prostate sites for which ultrasound or DRE results were suspicious. During the first two years, the cancer detection rate (ie, men with positive biopsy results/total men biopsied) was approximately 18%, but thereafter, because of the changes in technique mentioned above, the cancer detection rate has averaged at least 30% each year.

Ultrasonography was done in men aged 39 years to 88 years (mean, 66 years). Most (1016) of these men were 61 to 70 years of age; of these 1016 men, 281 (28%) had a positive biopsy result. The cancer detection rate increased with each decade of age and varied from 17% (in men aged 41-50 years) to 43% (in men older than 80 years). Although 168 (8%) of the 2076 men did not have a biopsy, biopsy results were negative for >50% of men who did have biopsy.
Prostate volume in the men studied varied from 8 mL to 324 mL (mean volume, 56 mL). In contrast to age and PSA level (which are directly related to incidence of cancer detected at biopsy), prostate volume shows an inverse relation to incidence of cancer detected at biopsy. Prostates with volume <30 mL had the highest rate of cancer detected at biopsy (43%); the lowest rate (10%) was seen in prostates with volume >120 mL.

Table 1 lists biopsy results grouped according to common PSA reference ranges. Of the 2076 patients who had TRUS of the prostate, 1815 (87%) had a serum PSA level recorded. As PSA values increased, the rate of positive biopsy results continued to increase and reached 98% (for PSA >90 ng/mL).

Calculating PSA density (serum PSA in ng/mL divided by prostate volume in mL) has been advocated as a method of increasing the sensitivity of cancer detection by correcting for the higher values of PSA that are due only to a larger prostate size. Because prostate cancer raises PSA level more per gram of tissue than benign prostate enlargement does, the concept of PSA density may be helpful in avoiding a biopsy when the elevated PSA is due to prostate size alone. A common recommendation is to avoid biopsy when PSA density is <0.15. Table 2 shows that a general increase in rate of positive biopsy results as PSA density increases. However, even at a density of 0.20-0.25, only about a third of men in the study had a positive biopsy result, and, conversely, 13% of men with PSA density 0.15 were found to have cancer that would not have been detected if biopsy had not been done.

Tables 3 through 6 show biopsy results correlated with the side of the prostate for which DRE or TRUS findings raised suspicion of cancer. Biopsy result for the suspect side was tabulated as negative even if the biopsy result for the contralateral, nonsuspect side was positive. Overall for the 2076 men, 619 (30%) had a positive biopsy result. Table 3 shows that 888 men with positive result of DRE had the highest positive biopsy rate (41%); 20% of men with negative results of DRE had positive biopsy results; and men with indeterminate results of DRE had an even lower rate of positive biopsy results (13%). The highest rate of negative biopsy results (72%) was seen in men who had negative results of DRE. However, 20% of men who had negative results of DRE did have cancer.

Table 4 relates biopsy results to ultrasound findings. Of the 591 men with a positive ultrasound result, 326 (55%) had a positive biopsy result, 262 (44%) had a negative biopsy result, and three (1%) had no biopsy.
The highest rate of positive biopsy result (55%) was seen in the group of men who had positive results of TRUS. Only 16% of men who had negative results of TRUS and 30% of men with indeterminate results of TRUS had positive biopsy results.

Of the 2076 men who had TRUS, 1908 (92%) had a biopsy. Of these, 1584 (83%) had bilateral biopsy. Corrected for laterality, 584 (28%) of these 1584 men had positive results of ipsilateral biopsy on the suspect side. Of those 584 men, 262 (45%) were found to have cancer on the nonsuspect side as well, and 272 (47%) had negative results of contralateral biopsy. Only 35 (3%) of the 1324 men with negative results of ipsilateral biopsy had cancer on the contralateral, nonsuspect side only.

Positive biopsy result was related to PSA level and DRE result (positive or negative) and to PSA level and TRUS result (positive or negative) (Tables 5,6). Combining PSA with positive DRE result gave a higher positive biopsy rate than PSA alone (Table 1) or DRE alone (Table 3) gave. Similarly, combining PSA and positive result of TRUS showed a higher positive biopsy rate than either measurement alone. The highest rate of positive biopsy result occurred in men with PSA >10.0 ng/mL and either a positive DRE result (75%) or a positive TRUS result (78%). The lowest rate of positive biopsy result was seen in men with PSA ≤4.0 ng/mL and negative DRE result (0%) or with PSA ≤4.0 ng/mL and negative TRUS result (3%).

Of the 26 patients with PSA ≤4.0 ng/mL prostate and cancer detected at biopsy (Table 1), 24 (92%) had a positive DRE result. However, those 24 men (Table 5) represent only 11% of the group of 214 men who had PSA ≤4.0 ng/mL and a positive DRE result.

### Table 3. Biopsy results correlated with results of digital rectal examination (DRE) in 2076 men.

<table>
<thead>
<tr>
<th>DRE results</th>
<th>No. biopsy results (% with same DRE result)</th>
<th>No. biopsy results (% total population)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Positive</td>
<td>Negative</td>
</tr>
<tr>
<td>Positive</td>
<td>361 (41)</td>
<td>473 (53)</td>
</tr>
<tr>
<td>Negative</td>
<td>201 (20)</td>
<td>735 (72)</td>
</tr>
<tr>
<td>Indeterminate</td>
<td>22 (13)</td>
<td>116 (69)</td>
</tr>
<tr>
<td>Total</td>
<td>584 (28)*</td>
<td>1324 (64)</td>
</tr>
</tbody>
</table>

*As noted in the text, 35 men had a positive biopsy result only on the negative side. Including these men results in an overall positive biopsy rate of 30% (619/2076).

### Table 4. Biopsy results correlated with results of ultrasound examination in 2076 men.

<table>
<thead>
<tr>
<th>Ultrasound result</th>
<th>No. biopsy results (% with same ultrasound result)</th>
<th>No. biopsy results (% total population)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Positive</td>
<td>Negative</td>
</tr>
<tr>
<td>Positive</td>
<td>326 (55)</td>
<td>262 (44)</td>
</tr>
<tr>
<td>Negative</td>
<td>204 (16)</td>
<td>933 (72)</td>
</tr>
<tr>
<td>Indeterminate</td>
<td>54 (30)</td>
<td>129 (70)</td>
</tr>
<tr>
<td>Total</td>
<td>584 (28)*</td>
<td>1324 (64)</td>
</tr>
</tbody>
</table>

*As noted in the text, 35 men had a positive biopsy result only on the negative side. Including these men results in an overall positive biopsy rate of 30% (619/2076).
Similarly, 19 (73%) of the 26 men with a positive biopsy result and PSA $\leq 4.0$ ng/mL had a positive TRUS result; however, those 19 men represent only 23% of men with a PSA $\leq 4.0$ ng/mL and a positive TRUS result (Table 6).

Of the 2076 ultrasound examinations, 318 (15%) were repeat studies done on the same patient (seven days to seven years after the patient was first examined by ultrasound). Patients had any of five indications for repeated TRUS examination: 1) insufficient tissue specimen or nondiagnostic biopsy result; 2) no biopsy done at first TRUS examination; 3) presence of high-grade prostatic intraepithelial neoplasia (PIN); 4) only a small focus of low-grade cancer seen at first biopsy; or 5) rising PSA seen after initially negative TRUS or biopsy results. Of these 318 repeat ultrasound examinations, 312 (98%) were accompanied by biopsies, and 224 (72%) of these 312 biopsies showed no change from the previous biopsy results. Of the 272 men who previously had negative biopsy results, 208 had the same findings at repeat biopsies, and 60 (22%) converted to a positive biopsy result. Four men did not have biopsy done at repeat ultrasound examination. The cancer detection rate for both groups—22% for men with previous negative biopsy result and 27% for men with no previous biopsy result—was lower than the 30% detection rate for patients who had a biopsy at first TRUS examination.

For each successive year after a negative biopsy result was obtained, the cancer detection rates seen at repeat TRUS and biopsy are also <30%. Among patients with initially negative biopsy results, repeat TRUS and biopsy produced an overall cancer detection rate of 23% when done for rising PSA density levels.

How much weight should be given to positive or negative findings of DRE or TRUS examination, to a given serum PSA value, or to any combination of these three variables? Our experience correlating these important variables is presented (Tables 7,8,9).

**Table 5. Positive biopsy results in 517 men correlated with PSA level and DRE result.**

<table>
<thead>
<tr>
<th>PSA level (ng/mL)</th>
<th>No. (%) of positive biopsy results $^b$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Positive DRE result $^c$</td>
</tr>
<tr>
<td>$\leq 4.0$</td>
<td>24 (11)</td>
</tr>
<tr>
<td>4.1-10.0</td>
<td>92 (43)</td>
</tr>
<tr>
<td>&gt;10.0</td>
<td>201 (75)</td>
</tr>
<tr>
<td>Total</td>
<td>317 (46)</td>
</tr>
</tbody>
</table>

$^a$ 1514 men had indeterminate DRE result, negative biopsy result, no biopsy done, or a combination.

$^b$ Percentage with same DRE result and level of PSA.

$^c$ PSA level not recorded for an additional 44 men with a positive biopsy result.

$^d$ PSA level not recorded for an additional one man with a negative biopsy result.

**Table 6. Positive biopsy results in 490 men correlated with PSA level and ultrasound results.**

<table>
<thead>
<tr>
<th>PSA level (ng/mL)</th>
<th>No. (%) positive biopsy results $^b$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Positive ultrasound result $^c$</td>
</tr>
<tr>
<td>$\leq 4.0$</td>
<td>19 (23)</td>
</tr>
<tr>
<td>4.1-10.0</td>
<td>80 (44)</td>
</tr>
<tr>
<td>&gt;10.0</td>
<td>198 (78)</td>
</tr>
<tr>
<td>Total</td>
<td>297 (57)</td>
</tr>
</tbody>
</table>

$^a$ 1546 men had indeterminate ultrasound result, negative biopsy result, no biopsy done, or a combination.

$^b$ Percentage with same ultrasound result and level of PSA.

$^c$ PSA level not recorded for an additional 29 men with a positive biopsy result.

$^d$ PSA level not recorded for an additional 11 men with a negative biopsy result.
Table 7. Percentage of positive biopsy results correlated with one, two, or three variables.

<table>
<thead>
<tr>
<th></th>
<th>Percentage positive biopsy results</th>
<th>Correlated with two variables</th>
<th>Correlated with three variables</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Positive DRE result</td>
<td>Positive ultrasound result</td>
</tr>
<tr>
<td>Positive DRE result</td>
<td>41</td>
<td>--</td>
<td>62</td>
</tr>
<tr>
<td>Positive ultrasound result</td>
<td>55</td>
<td>62</td>
<td>--</td>
</tr>
<tr>
<td>PSA level(^a)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(\leq 4.0)</td>
<td>8</td>
<td>11</td>
<td>23</td>
</tr>
<tr>
<td>4.1-10.0</td>
<td>26</td>
<td>43</td>
<td>44</td>
</tr>
<tr>
<td>&gt;10.0</td>
<td>48</td>
<td>75</td>
<td>78</td>
</tr>
<tr>
<td>-- = not applicable.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(^a) Expressed as ng/mL.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 8. Percentage of positive biopsy results correlated with one, two, or three variables.

<table>
<thead>
<tr>
<th></th>
<th>Percentage positive biopsy result</th>
<th>Correlated with two variables</th>
<th>Correlated with three variables</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Negative DRE result</td>
<td>Negative ultrasound result</td>
</tr>
<tr>
<td>Negative DRE result</td>
<td>20</td>
<td>--</td>
<td>16</td>
</tr>
<tr>
<td>Negative ultrasound result</td>
<td>16</td>
<td>16</td>
<td>--</td>
</tr>
<tr>
<td>PSA level(^a)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(\leq 4.0)</td>
<td>8</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>4.1-10.0</td>
<td>26</td>
<td>17</td>
<td>17</td>
</tr>
<tr>
<td>&gt;10.0</td>
<td>48</td>
<td>28</td>
<td>25</td>
</tr>
<tr>
<td>-- = not applicable.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(^a) Expressed as ng/mL.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
As shown in Table 9, a 16% incidence of cancer was detected among men for whom results of DRE and TRUS were both negative. Most of our patients had either a positive DRE result or a positive TRUS result to direct the focus of the biopsies. However, 805 patients had both a negative DRE result and a negative TRUS result. Of these men, 127 (16%) had positive biopsy results. Most men (423) had an intermediate PSA level (4.0–10.0 ng/mL). Biopsy result was positive among slightly less than half of this group; biopsy result was positive among slightly more than half of men with PSA >10.0 ng/mL.

**Discussion**

This review of >2000 ultrasound examinations of the prostate includes data from our initial years of using ultrasound for clinical diagnosis of prostate neoplasms. During the first two years, we detected a cancer incidence of 18% among men who had TRUS examination of the prostate. This result is similar to the rate found by Cooner et al.1 in their early, landmark study. As our experience increased and as our knowledge of prostate cancer increased,2,3 we began to do more biopsies, including biopsies on the side contralateral to the suspect side and then sextant-directed biopsies where biopsy of each lobe of the prostate was done at least three times regardless of the DRE or ultrasound findings. The result over the past few years has been a relatively stable 30% (mean) rate of positive biopsy result, a rate which is similar to those obtained in other published studies.4,5,6,7

As we expected, our data showed an increase in incidence of cancer (ie, from 17% to 43%) with increasing age during the fourth through ninth decades of life.7 In addition, the positive biopsy rate decreases as prostate volume increases, as noted by others.3,6 This finding may be caused by two factors: 1) benign prostatic hyperplasia (the main cause of increased prostate volume) may increase serum PSA levels and thus lead to TRUS examination in many men with benign disease; 2) when sextant biopsies are done on a large gland, a small cancerous area is more likely to remain undetected than when the same number of sites are biopsied in a small gland.

Measurement of PSA density has been suggested as a method to correct for the effect of increased prostate volume on PSA levels.8 However, our experience (Table 2) has not shown that PSA density is a useful indicator for prostate biopsy.

Used as an indicator, a positive DRE or ultrasound result leads to more positive biopsy results, as does an elevated PSA level.4,9,10 In addition, the higher the PSA level, the higher the number of positive biopsy results; yet neither a negative result of DRE or ultrasound nor a “normal” PSA level assures absence of cancer.3,11,12 Combining variables increases the rate of positive biopsy result (Table 7) but could nonetheless fail to detect cancer in some patients (Tables 8, 9).

Given that many biopsy results for the contralateral, nonsuspect side were positive and that positive biopsy results were not precluded by either a “normal” PSA, a negative DRE result, or a negative ultrasound result, we advocate use of the sextant or multiple biopsies in addition to directed biopsies of suspect areas as identified at DRE or ultrasound examination.4,11,12,13

In our experience, initial biopsies yielded the highest cancer detection rate (30%), whereas later, repeat biopsies yielded rates lower than 30%.11

<table>
<thead>
<tr>
<th>Biopsy result</th>
<th>No. (%) biopsy results correlated with PSA levela</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>≤4.0</td>
<td>4.1-10.0</td>
</tr>
<tr>
<td>Positive</td>
<td>0 (0)</td>
<td>60 (47)</td>
</tr>
<tr>
<td>Negative</td>
<td>27 (5)</td>
<td>324 (55)</td>
</tr>
<tr>
<td>None</td>
<td>20 (24)</td>
<td>39 (46)</td>
</tr>
<tr>
<td>Total</td>
<td>47 (6)</td>
<td>423 (53)</td>
</tr>
</tbody>
</table>

*aExpressed as ng/mL.
Summary and Conclusions

These data present the experience of a urology practice performing 2076 transrectal ultrasound examinations of the prostate to detect prostate carcinoma at a staff-model HMO. Our diagnostic techniques have improved over the years, resulting in a higher number of positive biopsy results. We now perform at least six biopsies of selected sites from both sides of the prostate for all patients whose serum PSA levels are higher than the age-adjusted norm; this procedure includes directed biopsy in men who have a definite nodule at DRE or a clearly delineated hypoechoic lesion seen at TRUS examination. If PSA level is within normal limits, we may elect biopsy only for palpable or visible lesions in otherwise low-risk patients. The high yield of positive contralateral biopsy results obtained in patients whose suspect side gives positive results shows that we may assign too low a stage to many cancers if contralateral biopsy is not done. We recommend that men with large prostate glands have eight or more biopsies of selected sites and that men with previous negative biopsy results but rapidly rising PSA levels have biopsy of the transition zone of the prostate as well.

References:

Positive Change

“If each of us were involved in some form of positive change, there wouldn’t be enough problems to go around.”

Sam Harris,
Reclaiming Democracy
An Internal Medicine Pain Clinic was started at our facility to help primary care practitioners manage pain associated with chronic, disabling, nonmalignant conditions. This article describes results of a study done to evaluate the success of this clinic in the two years since its inception. By providing a compassionate care environment and by assuring members that their medications would be available on a designated day each month, scores in pain, anxiety, life satisfaction, and mood were improved for most patients.

Introduction

Practicing physicians are concerned about how our profession manages patients who have pain. Patients with terminal cancer can be referred to a hospice program, which allows patients to die with minimal suffering. Patients with chronic pain syndromes may be more difficult to treat and may often require narcotic analgesia to manage their pain. These patients are often depressed, and their reported use of pain medication may differ from actual use. In some cases, this misreporting becomes a major problem because many physicians are reluctant to refill prescriptions for pain medications without examining the patient. Pharmacists know the patients who frequently ask for medication refills and are concerned because of the long-term toxicity associated with medication formulated to include acetaminophen.

Because of complaints by patients, pharmacists, and primary care practitioners, an Internal Medicine Pain Clinic was started at the Kaiser Permanente Antelope Valley Medical Offices to help primary care providers understand the characteristics of these patients and to understand the tools needed that may help in long-term pain management for patients suffering from chronic disabling conditions.

Methods

Health Plan members were selected for inclusion in the study on the basis of being referred by primary care providers and pharmacists to the Internal Medicine Pain Clinic. All patients answered a psychosocial questionnaire at their initial visit and answered life satisfaction surveys at every visit. A social worker met with members individually and in weekly support groups to focus on management of other conditions (eg, dependence on opioid analgesic agents, psychosocial trauma) that may affect patients’ perception of pain. Treatment plans included referral for further studies or consultative services (eg, neurology, physical medicine, anesthesiology) when necessary. Patients with nonmalignant medical conditions who were receiving opioid analgesic therapy for chronic pain were promised that they would receive a predetermined quantity of medications at regular (28-day) intervals and were informed of the risks and benefits of this therapy as well as alternatives to it. Antidepressant agents with or without referral to psychiatry or drug addiction medicine specialists were given to patients as indicated.

Before and after their course of treatment at the clinic, patients answered a questionnaire that asked them to rate their subjective experience with the treatment on a scale of one to ten, a score of ten indicating severe pain, anxiety, dissatisfaction with life, and negative mood (Figure 1).

Results

Questionnaires about pain were received from 180 patients who were evaluated in the clinic during the two years since its inception in May 1999. Of those patients who returned for follow-up management, (n = 113), most (69%) were female, and the mean age was 49 years.

Of the patients who filled out questionnaires (n = 180), tobacco use (n = 80) and depression (n = 92) were common characteristics, as were a history of family problems (n = 58) and of divorce (n = 59). Most of these patients had tried physical therapy and pain medication without improvement. Fewer than 20% of the patients had tried acupuncture or other forms of alternative therapy.
The most common causes of pain seen in the clinic were headache (n = 88) and disc disease (n = 135). Some unusual causes of chronic pain treated in the clinic included postherpetic neuralgia, avascular necrosis, multiple sclerosis, muscular dystrophy, and reflex sympathetic dystrophy (RSD).

Table 1 presents the mean scores reported by Health Plan members seen in the pain clinic before and after initial treatment (n = 113). Before treatment, mean pain score reported was 6.5, and most patients (68 of 113 respondents) were anxious (reported score greater than or equal to five).

By receiving care in a compassionate environment, most people improved their scores in mood, anxiety, and life satisfaction. A supportive team approach and promising the member that medication would be available at the same time each month reduced patients’ overall anxiety levels by 20% (ie, from a mean pretreatment score of 5.4 to a mean posttreatment score of 4.3). For 59% of members, the total score improved after initial treatment; for 41% of members, their condition either did not improve or became worse (Figure 2).

Discussion
Research has shown that subjective pain ratings higher than four on a ten-point scale interfere substantially with a patient’s activities and mood. However, management of chronic pain is a complicated process that requires the skills of many people, including the patient. Patients in our study were thus encouraged to be aware of the different components of their pain syndrome and to be constantly aware of the long-term side effects of their pain medications.

In our study, mean pretreatment and posttreatment mean pain scores were much higher than four. Despite thorough examination of patients, the team of providers working in the clinic could not substantially improve this pain score. In contrast, mood and anxiety scores improved greatly after treatment and were associated with an overall improvement in patient’s life satisfaction. To achieve these improved scores, patients seen in the pain clinic were evaluated carefully in an empathetic environment to determine what part of their perceived pain was caused by physical injury (ie, the body’s need for pain medication), psychosocial trauma, or both. These factors are subjective, and effective tools to monitor their role in pain perception have not been developed. Consequently, clinicians who work with patients suffering from chronic nonmalignant pain should tend to believe the scores reported to them by their patients.

Conclusion
From a patient’s perspective, the first goal of treatment is to manage pain. After this has been accomplished, the provider-patient team can work to address psychosocial issues and any addictive behavior that may exist. Patients with a chronic pain syndrome are understandably anxious and need support and encouragement from the primary care practitioners. When this support is provided and the pain is alleviated, patients can begin the process of improving their overall quality of life.

Table 1. Ratings reported by 113 Health Plan members responding to questionnaire before and after receiving treatment at the Internal Medicine Pain Clinic

<table>
<thead>
<tr>
<th>Experience Measured</th>
<th>Mean Scores Reported</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Before Treatment</td>
</tr>
<tr>
<td>Pain</td>
<td>6.5</td>
</tr>
<tr>
<td>Anxiety</td>
<td>5.4</td>
</tr>
<tr>
<td>Life Satisfaction</td>
<td>4.6</td>
</tr>
<tr>
<td>Mood</td>
<td>5.4</td>
</tr>
<tr>
<td>All Combined</td>
<td>21.9</td>
</tr>
</tbody>
</table>

Figure 2. Bar graph shows percentage of patients reporting improvement in the experiences evaluated.

References:

The Patient Always
“Nothing about me without me.”
Thomas L. Delbanco, M.D.,
from Through the Patient’s Eyes: Understanding and Promoting Patient-Centered Care.
Kaiser Permanente Medicine 50 Years Ago:
Acute Catarrhal Hepatitis: A Study of Twenty-Two Cases,
With Current Day Commentary

Reprinted from the Permanente Foundation Medical Bulletin, 1944:2(3):126-34.

Epidemiology

The etiology of catarrhal jaundice has not been definitely determined up to the present time. A filterable virus has been accused, but the various means used to isolate or transmit this ultramicroscopic organism to the various laboratory animals have all met with failure. At no time has an animal or insect vector been found, nor has it been accepted that food or fomites are the agents of transmission, although an outbreak in Scotland was attributed to milk. Anderson claimed that swine were a source of hepato-trophic virus. Water also has been incriminated by Bellandes and Hallgren, and by Frazier, who attributed to this source an outbreak following a waterborne salmonella epidemic.

It has been observed that outbreaks have followed tonsillitis and upper respiratory infection resembling an influenza syndrome.

Epidemiologically, it is justified to presume that a virus is the infecting agent because of the suspected mode of transmission, incubation period, age group involved, character of the epidemics and failure to isolate the organism.

The suspected mode of transmission is by means of droplet infection and that rather close personal contact is necessary. For an example, an epidemic occurred in a school and as long as the children remained in school the disease was localized to that one group, but with the coming of vacation, the infection spread to schools in the surrounding area. Usually two to three members of a class or two members or more of a family became ill. This is typical of an epidemic of infectious jaundice. To further substantiate that it usually has spread among groups in close contact, Hunter described the observations of epidemics of World War I. He stated, “The usual history in any battalion affected commenced with one to two isolated cases. Then there was an interval of about three to four weeks; then a large number of cases for three weeks; finally an occasional case for another few weeks.”

The highest incidence reported was between the ages of six to 10, and 20 to 30 years, and was evenly distributed between the sexes. The incidence was highest in the fall and winter, decreasing in the spring, and nearly absent in summer. No age group was immune, as was pointed out by Bloomfield, who felt that the older group was also quite susceptible.

Our series did not show an even distribution between the sexes, and only 15.8 percent were below twenty years of age. However, this was not true representation of the surrounding area because our study included only adult shipyard workers.

Kerr, in a simultaneous study of epidemic jaundice in this area, covering the entire population group, based upon cases reported to the Department of Public Health between March 1943 and April 1944, noted that the highest incidence fell in the five- to nine-year-old group. The 20- to 29- and 30- to 39-year-old groups were equal in number and were found to be next in frequency. There was no study made to compare the incidence between the sexes. In all, 80 cases were studied by Kerr, and all worked or attended school in Richmond. There were 70 cases in the Richmond area, which included San Pablo, El Cerrito, and vicinity. Most of the people observed resided in the new war housing projects. The remaining ten were distributed among people living in Oakland, Berkeley, San Francisco, and Vallejo.

Leptospira agglutination tests, performed on blood sera secured at different stages of the disease, were all negative. An attempt was made to discover possible contacts in all cases, but usually none were found. In three instances, it was noted that apparently parents had contracted the disease from their children. To make the study more difficult, many may have had the prodromal signs but not the icteric stage.

It was emphasized by Kerr that more than one attack of jaundice has been known to occur in the same individual, which suggests various strains of hepatotoxic virus.

Homologous Serum Jaundice

Following yellow fever vaccination in the armed forces, many cases of jaundice appeared among the men. It resembled catarrhal hepatitis in every respect except epidemiologically, and the occasional prodromal appearance of urticarial eruption and severe joint pains. The incubation period was two to four months.

By Phillip J. Raimondi, MD

Commentary by Leon Kaufman, MD

“The etiology of catarrhal jaundice has not been definitely determined up to the present time. A filterable virus has been accused, but the various means used to isolate or transmit this ultramicroscopic organism to the various laboratory animals have all met with failure.”

“An attempt was made to discover possible contacts in all cases, but usually none were found. In three instances, it was noted that apparently parents had contracted the disease from their children.”

By Phillip J. Raimondi, MD

By Leon Kaufman, MD

Commentary by Leon Kaufman, MD

“The etiology of catarrhal jaundice has not been definitely determined up to the present time. A filterable virus has been accused, but the various means used to isolate or transmit this ultramicroscopic organism to the various laboratory animals have all met with failure.”

“An attempt was made to discover possible contacts in all cases, but usually none were found. In three instances, it was noted that apparently parents had contracted the disease from their children.”

By Phillip J. Raimondi, MD

By Leon Kaufman, MD

Commentary by Leon Kaufman, MD

“The etiology of catarrhal jaundice has not been definitely determined up to the present time. A filterable virus has been accused, but the various means used to isolate or transmit this ultramicroscopic organism to the various laboratory animals have all met with failure.”

“An attempt was made to discover possible contacts in all cases, but usually none were found. In three instances, it was noted that apparently parents had contracted the disease from their children.”

PHILLIP J. RAIMONDI, MD, was one of the early practitioners in The Permanente Medical Group. He took his residency training in the late 1940s, and practiced gastroenterology and internal medicine in Oakland for several decades until his retirement 20 years ago. Dr Raimondi died ten years ago.

LEON KAUFMAN, MD, was educated at McGill University in Montreal (BSc and MD). He joined The Permanente Medical Group (TPMG) Oakland Medical Center in 1973. He is Chair of the Liver Transplant Advisory Board for TPMG and Associate Clinical Professor of Medicine at UCSF. E-mail: leon.kaufman@kp.org
Investigations revealed that those men who developed jaundice were inoculated with certain lots of vaccine, whereas other lots caused no such difficulty.6 Most cases were mild. Some only presented symptoms of the prodromal period and did not develop jaundice. This occasionally has been noted when catarrhal jaundice has been suspected during epidemics. The period of recovery was four to eight weeks, and in the fatal cases death occurred in two to six weeks.

Pathological studies in fatal cases revealed the presence of acute yellow atrophy.6–7 Those patients who died of other causes offered an opportunity to study the effect upon the liver. It was noted that the earliest lesion was frank necrosis of the central regions of the lobules. The stroma was seldom involved. There were no inclusion bodies of yellow fever seen. In the fatal cases, the cecum was inflamed, the kidney showed a biliary nephrosis, and there were hemorrhages into serous and mucous membranes.

This type of reaction following homologous serum therapy has been observed in the past. Jaundice appeared following the use of “glycerinated humanised” lymph, measles and mumps vaccine.6 It also has been seen following transfusions.3 The same thing has occurred in horses immunized with homologous serum.10 Investigations to determine the cause of jaundice led to the conclusion that probably some infective agent was present in the vaccine and its source was probably in the serum used. When new vaccines were made without the serum, no reactions were observed. Studies were carried out in which volunteers were used as subjects, and jaundice was reproduced in these when the same lot of vaccine was used and when serum from jaundiced patients was administered.

Important conclusions derived from the study were that a virus, probably identical with that causing acute catarrhal hepatitis, was the infecting agent. It could resist drying in vacuum, storage for long periods in serum at 4 degrees C, and heating to 56 degrees C for one-half hour in the dried state.8

Another hypothesis which has been offered is that the liver is subject to an antibody-antigen reaction which results in hepatitis.11

Pathology

Acute catarrhal hepatitis is a relatively benign malady, and the pathologist infrequently is given the opportunity to study the changes which take place in the liver. However, some studies have been made, with considerable disagreement among the authors. In a passage in the Official History of the War, Medical Services, Diseases of the War,7 Volume 1, is stated: “The cause of jaundice in these cases seems to be obstruction in the biliary tract. The symptoms are not usually severe or lasting enough for there to be any involvement of the smaller ducts within the liver and are best explained by the swelling of the papilla of Vater as a part of a duodenal inflammation due to localization of inflammation in the duodenum.” However, studies made by Eppinger9 on dead jaundiced soldiers did not reveal any catarrhal changes in the duodenum or bile ducts, but he did show degenerative changes in the liver cells. Experiments by Van Rooyen and Gordon3 also failed to substantiate any gastric, duodenal, or biliary catarrhal. Both jaundiced and normal individuals were used as subjects. Aspiration of the duodenal contents after using a cholangiogram revealed no appreciable difference in the groups. Steigmann and Popper10 found a narrowing of the common bile duct rather than dilatation as some authors describe. They reported: “The livers of two cases of acute hepatitis showed degenerative changes in the liver parenchyma, bile imbibition by the liver cells, and bile casts in the dilated bile capillaries … there was enlargement of the perportal fields with very marked fibrosis, lymphocytic and occasionally leucocytic infiltration, and bile duct proliferation … The demarcation of the perportal fields was not clear due to the extension of the proliferated bile ducts into the periphery of the lobules, where the liver cells showed irregular shape.”

Popper [sic]10 and Hanger describe a pathological process which places the point of obstruction in the perportal field. The dilated bile capillaries are joined to the narrowed bile ducts by the wide but weak-walled canal of Hering, which is lined with flat epithelium. This connecting link is either ruptured or occluded by the exudate in the perportal field, thus preventing the flow of bile in the bile ducts.

Clinical Picture

Prior to the onset of jaundice, it has been stated that there is a prodromal period of three to seven days, during which time the patient may be either mildly or acutely ill. In a review of our 22 cases, this was found to be true in the majority …

"Some only presented symptoms of the prodromal period and did not develop jaundice."

"Acute catarrhal hepatitis is a relatively benign malady, and the pathologist infrequently is given the opportunity to study the changes which take place in the liver."

"Prior to the onset of jaundice, it has been stated that there is a prodromal period of three to seven days, during which time the patient may be either mildly or acutely ill. In a review of our 22 cases, this was found to be true in the majority …"
It was seldom that the temperature rose above 101 degrees F and the most common symptoms (82.8%) were anorexia, nausea and vomiting with various combinations of the following: bloated sensation, vague abdominal complaints, constipation or diarrhea, weakness, malaise, common cold and influenza-like syndrome. Vomiting was the most common symptom (68% of cases). Before jaundice made its appearance, it was noted that the urine became darker in color and the stools lighter.

In the milder cases of catarrhal hepatitis, the prodromal symptoms ceased a short time prior to the appearance of jaundice or extended up to this point, and then the patient felt very well. The more severe cases remained ill for a variable period of time after the onset of jaundice.

The usual course of the jaundice stage of catarrhal hepatitis, as a rule, was uneventful and the patient was kept in bed and on a low-fat, high-carbohydrate, high-protein diet until the jaundice cleared. Three patients in our series progressed to the point where they became intensely jaundiced, and studies of the bile pigments in the urine and stool revealed that complete hepatic obstruction had taken place. Liver function tests indicated parenchymal involvement of varying severity. The amount of toxicity seemed to bear a direct relationship to the severity of the hyperbiliurbinemia [sic: hyperbilirubinemia] (as measured by the icterus index) and hepatic insufficiency. In fulminating cases, parenchymal destruction has been reported as taking place rapidly and the patient expiring within a few weeks. In homologous serum jaundice as reported by Turner et al, death occurred in 24 to 39 days. During this severe toxic stage, there have been seen neurological or personality changes, hemorrhages into the mucous membranes and gastrointestinal tract, ascites, and kidney dysfunction.

The duration of hospital stay in our patients was from three to seventeen days except in the three severely jaundiced patients, who required 21 to 62 days. Follow-up clinic visits in 13 patients revealed that the average period away from work was 31.5 days, the shortest being 11 days and the longest 73 days.

As a rule, there was a normal white cell count or a leukopenia present with an increase in the nongranular series of white cells. This was true in all of our patients but one, in whom it was observed that the leukocyte count was 26,350 cells per cubic millimeter on entrance and it later dropped to 12,550. This may have been a case of true cholangitis. The sedimentation rate in this disease has usually been reported as being normal. In ten patients in which it was determined, it varied between 12 and 89 millimeters in one hour (Westergren method). The highest rates were in our two most severe patients and in one patient who might be considered mildly to moderately ill.

The intravenous hippuric acid liver function test was performed in the majority of patients and was never found to be abnormal in the milder cases. Urine examination in all cases revealed the presence of bilirubin in the urine and also amounts of urobilinogen which were within normal limits. The prothrombin in all of the milder cases was found to be within normal limits.

It has usually been considered that no ill effects remain after a mild case of catarrhal hepatitis. However, Kornberg et al, reported liver disease to be demonstrable in persons who had catarrhal jaundice at one time and who subsequently appeared to be normal.

Case Reports

Three patients in this series are of special interest because of the intensity and duration of jaundice, the degree of hepatic involvement, and the atypical course of the illness.

Case 1. In which the patient was jaundiced for over three months, with evidence of severe liver damage and an icterus index as high as 340 units.

A 57-year-old, white, obese male, was admitted into the hospital on January 17, 1944, after being jaundiced, he stated, for six weeks. His illness began with a cold. He was able to continue work for two weeks, but on December 14, 1943, it was necessary for him to go to bed. He remained there a few days and, on rising, noted that his skin was yellow and that he was quite weak. He complained of nausea and vomiting three weeks prior to entry and had noticed that his urine had become darker and his stools lighter. Pruritis [sic] was moderately severe, but he complained of no pain. He had lost 22 pounds since the illness began.

Physical examination was not remarkable except for jaundice and right upper quadrant tenderness. The liver was not palpable.

Laboratory studies: The leukocyte count on admission was 12,800 cells per cubic millimeter and by...
March 28, 1944, it was 61.50. The first icterus index was 105 units, and its highest level was 340 (17 days after admission). Prothrombin time was normal up until March 17, when it was found to be 42 percent of normal. Repeated hippuric acid liver function tests indicated parenchymal damage, and on February 5, none was formed by the liver. Examination of the urine for bile and urobilinogen disclosed a four-plus bilirubin reaction and no urobilinogen present on two occasions: first on January 24 and second on February 6. After this, the urobilinogen was found to be present in the urine in normal amounts. There was never any lowering of the serum albumin, and the serum globulin was elevated to 4.0 grams per 100 cubic centimeters on one occasion. The sedimentation rate was repeatedly elevated; the highest level was 89 millimeters in one hour (Westergren method). Stool examinations for occult blood were positive (guaiac method) on two occasions.

Roentgenograms of the gallbladder area and upper gastrointestinal tract were normal.

The patient was in the hospital for approximately 63 days, and for a few weeks, he was acutely and severely ill. Pruritis was aggravating but never really severe. His jaundice became so deep that a slight greenish tinge to the skin became evident. He became depressed easily and would cry occasionally.

The patient’s temperature during his stay in the hospital was usually within normal limits. On one or two occasions, it rose to 100 degrees F. The pulse was always relatively slow.

He was discharged from the hospital on March 21, 1944, with an icterus index of 25. He went home to New York and we have lost contact with him since.

Case 2. In which a patient was jaundiced for five weeks, with an icterus index as high as 136 units and some findings suggestive of cholecystitis with cholelithiasis.

A 33-year-old white female, well-nourished and developed, was admitted into the hospital December 28, 1943, with complaints of jaundice, weakness and pruritis. She stated that she had influenza during the spring of the same year. Since then, she had always felt weak, and had an aggravating pruritis. Three weeks prior to entry, she noted dark urine, and for two weeks, light-colored stools. Jaundice was present for ten days. She complained of no pain but did have nausea and vomiting for two months prior to entry. Appetite had been only fair for two to three months. Physical examination was not remarkable except for jaundice and tenderness in the right upper quadrant. The liver was not palpable.

Laboratory studies: The leucocyte count was normal on admission and always remained so. The prothrombin time was always within normal limits. The icterus index on admission was 103 units, and the highest was 136 (six days after admission). Bilirubin was present in large amounts in the urine, and urobilinogen was found to be absent on three different occasions in single specimens but not in successive samples. The hippuric acid liver function test (using 1.77 grams sodium benzoate intravenously) was very low on admission, only 0.04 grams recovered. Repeat tests on January 2 resulted in 1.38 grams being recovered, and on January 11, 0.45 grams were recovered. Blood albumin and globulin levels were never greatly disturbed; however, the globulin was 3.2 grams per 100 cubic centimeters on January 3. The sedimentation rate was 45 millimeters in one hour (Westergren). Several stool examinations showed traces of occult blood. The alkaline serum phosphatase was recorded as 5.6 units, and the heterophile antibody reaction was negative.

On one examination, a mass was thought to be palpable in the right upper quadrant, separate from the liver. Cholecystography at this time revealed a nonfunctioning gallbladder.

This patient suffered severely from itching of the skin and her entire body was covered with excoriations.

Case 3. A patient with evidence of moderately impaired liver function and icterus index to 124 units.

A 37-year-old white male, who appeared well-nourished and developed, was admitted to the hospital January 5, 1944. He stated that 20 days prior to admission, he had chills and fever associated with symptoms of influenza. About 10 days after the onset of illness, he had the sensation of abdominal distention. This was followed by diarrhea, which for a time was quite severe. The stools were cream-colored at first but on admission were returning to normal color. He had never had pain, but epigastric tenderness was present. His appetite during this period was poor.

---

"This patient suffered severely from itching of the skin and her entire body was covered with excoriations."
Physical examination was normal except for jaundice and a moderately enlarged and tender liver.

**Laboratory examinations:** The leukocyte counts were always within normal limits. The icterus index on admission was 88 units; it reached a peak of 124 units on January 17 and then decreased rather rapidly. The prothrombin time was normal. Urine urobilinogen was absent on three examinations between January 7 and January 12; it was present in a dilution up to one-to-sixty on an isolated specimen on January 19. Bilirubinuria was reported as four-plus reaction in all examinations. Only 0.19 grams of hippuric acid were recovered with the first intravenous test and 0.59 grams, on the next. The sedimentation rate was three millimeters per hour. The blood albumin and globulin were reported as 3.7 grams and 2.9 grams per 100 cubic centimeters, respectively. A roentgenogram of the abdomen was normal.

The clinical course of this patient was uneventful. He was discharged on January 26 and subsequently seen in the outpatient department. He was released for work on February 2, 1944.

**Discussion**

The prodromal periods in each of the above patients began with an upper respiratory infection, and in two there were associated symptoms of an influenzal syndrome. Each was ill longer than seven days before the onset of jaundice. The patient cited in Case 2 developed a respiratory infection in the spring and noticed the jaundice in the winter. It does not seem reasonable that such a long prodromal period could have existed. However, nausea and vomiting were present for two to three months, and her appetite was poor for two to three months. There is a possibility that she may have had a subicteric course during this period.

In Case 1, a period of five weeks elapsed before the highest icterus index was reached. This long period of increasing jaundice and decreasing liver function caused concern. If the patient had infectious hepatitis, it was feared he was going into the stage of acute yellow atrophy, or if he had a stone in the common duct, irreparable damage might be taking place. Surgery in the former condition would be harmful. A period of approximately 47 days elapsed before a drop in icterus index was noted in this patient.

Bloomfield asserts that to wait one month before resorting to surgery is justified and cites one instance in his series in which clearing of the jaundice started after a 35 day period.

In two patients, occult blood was noted in the stools. This might be due to either [sic] bleeding into the gastrointestinal tract as a result of low prothrombin content; however the prothrombin time (Quick one-stage method) was usually normal in these patients.

Mild cases of acute catarrhal hepatitis present little or no problem in diagnosis, but those cases seen for the first time which already show evidence of complete biliary tract obstruction are a problem, and the question often arises as to whether the condition is one requiring surgery.

Ivy and others point out that in the first two to six weeks of jaundice, the less sensitive liver function tests are helpful in differentiating between "surgical" and "medical" jaundice. In the former, the tests will be negative because any liver cell damage would be negligible and would not be detected, whereas in a hepatitis, the results would be abnormal.

One characteristic noted early in infectious hepatitis is the inability of the liver cells to reoxidize urobilinogen. As a result early in the disease, it is usually found in increased concentrations in the urine. Unfortunately, the physician seldom sees the patient at this time. As the disease progresses, the amount of urobilinogen in the urine decreases, and when complete obstruction develops, urobilinogen disappears from the urine entirely. At this time, bilirubin is found in large amounts in the urine, as has been graphically brought out by Steigmann.

With improvement, as the obstruction is relieved, bilirubinuria decreases, and urobilinogenuria again rises above normal transitorily, finally returning gradually to normal.

Liver function tests performed in each patient in this series included: icterus index, albumin and globulin determinations, prothrombin time, hippuric acid liver function tests, and urine and stool determinations for bilirubin and urobilinogen. The galactose tolerance test was done only on very early cases. With these tests, it was possible to formulate impressions as to the cause of jaundice, degree of liver damage, and rate of progress of the disease and of healing.

**Treatment**

It has been well established that the treatment of catarrhal hepatitis is to be directed towards helping the individual liver cells by supplying high-protein and -carbohydrate and low-fat diet. Addition of vitamins, especially of the B complex, is
of value. The caloric intake of food must be over the daily requirements and if the patient cannot eat, these may be supplied with intravenous glucose, plasma, and amino acids. In addition, vitamin K parenterally was given to help maintain the prothrombin level. Each patient was hospitalized until the jaundice had cleared. Turner states that it is necessary for the liver to metabolize products necessary for muscular activity, and to keep the body at rest would tend to spare some activity on the part of the liver.

**Conclusion**

The etiology of acute catarrhal hepatitis is probably a filterable virus which is hepatospecific. Differences in symptoms and prodromal periods may be due to various strains of this organism.

The relationship of jaundice to infectious hepatitis has been discussed. A review of the symptomatology, diagnostic studies performed, and management of 22 cases of acute catarrhal hepatitis was presented. Case histories were given of three patients manifesting severe liver damage and values of icterus index over 100 units.

**Bibliography**

4. Bloomfield, AL: How long should Surgery be Deferred in cases of Intense Jaundice of Recent Onset, Surg, 961-64 (Jan) 1941.
5. Kerr, JA, and Wynn, HJ: Personal communication to the author.
10. Memorandum prepared by Medical Officers of the Ministry of Health, Homologous Serum Jaundice, the Lancet (Jan 16) 1943.
17. Kornberg: Latent Liver Disease in Persons recovered from Catarhal Jaundice and in Otherwise Normal Medical Students are revealed by Bilirubin Excretion Test, J Clin Invest, 21:3 (May) 1942.

**Commentary**

By Leon Kaufman, MD

In recent years, hepatitis, and especially hepatitis C, is frequently in the news. There are billboards showing patients with yellow eyes. Information can be downloaded from the Internet, and countless chat groups have been conducted on the subject. In 1944, things were different.

In 1944, hepatitis, and especially hepatitis C, is frequently in the news. There are billboards showing patients with yellow eyes. Information can be downloaded from the Internet, and countless chat groups have been conducted on the subject. In 1944, things were different. Hepatitis was still a mysterious disease. I enjoyed the article by Dr Phillip Raimondi—much has changed since then. I have selected five areas to illustrate how our understanding of viral hepatitis has developed over the years.

1. **Pathogenesis:** Dr Raimondi’s title itself is of interest. The pathogenesis of “acute catarrhal hepatitis” was still controversial. Dr Raimondi notes that some continued to believe that jaundice was secondary to common bile duct obstruction due to a mucous plug associated with duodenal and ampullary inflammation—hence the term “catarrhal.” It was Hans Popper who demonstrated that viral hepatitis was clearly an inflamed liver.

2. **Etiology:** In 1944, the etiologies of “acute catarrhal hepatitis” (hepatitis A) and “homologous serum jaundice” (hepatitis B) were obscure. There was some insight into the parenteral source of postvaccinal jaundice. Yellow fever vaccine was contaminated with serum containing the hepatitis B virus. This resulted in 40,000 cases of acute hepatitis in the United States Army during that time. (It is said that Winston Churchill was offered the vaccine but refused. His
Small Inside Big

“What we’re trying relentlessly to do is to get that small company soul—and small company speed—inside our big company body.”

Jack Welch, CEO, General Electric
The Medicine Wheel: Understanding “Problem” Patients in Primary Care

Presented at the Fifth Annual Meeting of the Native Physician Association in Canada, Ottawa, Ontario, August 23-25, 1996.

The Medicine Wheel concept from Native American culture provides a model for whom we are as individuals: We have an intellectual self, a spiritual self, an emotional self, and a physical self. Strength and balance in all quadrants of the Medicine Wheel can produce a strong, positive sense of well-being, whereas imbalance in one or more quadrants can cause symptoms of illness. Addressing issues of imbalance can potentially diminish your patient's symptoms and enrich their quality of life.

Introduction

I am a full-blooded Mohawk of the Six Nations Iroquois Confederacy. Before joining the medical staff of Iroquois Confederacy, I lived and practiced medicine in the Native American community where I was born and raised—Kahnawake, Quebec, Canada. The Medicine Wheel—a visual model depicting the interrelation of basic life concepts—has long been a part of my culture but is relatively new to my personal life. Understanding and using the Wheel serves me extremely well in my own journey in life, and I have begun sharing this knowledge with patients as they arrive at my clinical practice here at Kaiser Permanente-Colorado. My approach to incorporating it into my own medical practice is, and has been, continually evolving.

The Medicine Wheel is not unique to Mohawk culture; it is derived from universal principles which are found within all human groups: sharing, caring, kindness, humility, trust, honesty, and respect.1,2 The Medicine Wheel model as applied to individual patients is at once simple to understand yet comprehensive in scope. When used in the context of understanding a particular patient’s overall situation, the Medicine Wheel can be a useful tool that facilitates the practice of holistic medicine. Although a complete discussion of all of the subtleties of interpreting the Medicine Wheel is beyond the scope of this article, I will give an overview of it and describe those portions relevant to patient care.

What is the Medicine Wheel?

A basic Medicine Wheel is a set of symbols. It is a circle containing a cross with arms like the spokes of a wheel. The four spokes make a path to the center, wherein sits the Creator or the Self, depending on the user’s context (Figures 1-6). From the Native American perspective, the circle is the principal symbol for understanding life’s mysteries because it is evident throughout nature: we look upon the physical world with our eyes, which are circular; the earth, sun, moon, and planets are round; the rising and setting of the sun follow a circular path; the seasons recur in a repeating (circular) cycle; birds build circular nests; and animals work their territories in circles. From this perspective, the whole of life appears to operate in circular patterns.3,4

By constructing the circle of the Medicine Wheel, a shaman constructs a symbol for a world in which everything is connected in harmonic synchronization. The Medicine Wheel thus symbolizes both the Universe and the working of the Universal Mind as well as the “little universe” of each person’s own individual life and individual mind.3

In Native American language, “medicine” meant power, a vital energy force that was within all forms of nature. It also meant “knowledge” because knowing gave the “knower” power to do, to achieve, and to attain. Because a wheel is accurately thought of as a spiral or vortex of energy in motion, “Medicine Wheel” means a circle or spiral of generated power under the control of Mind.1,2 The Medicine Wheel is

—Louis T. Montour, MD, CM; CCFP; ABFP

LOUIST.MONTOUR, MD, CM; CCFP, ABFP, has been with the Colorado Permanente Medical Group since September 1994. Educated at McGill University in Montreal, Quebec, he completed his Family Practice residency at the Sir Mortimer B. Davis Jewish General Hospital in Montreal. He is Board-certified in Family Practice in both Canada and the United States. E-mail: louis.t.montour@kp.org

Original drawing of medicine wheel, created by Dr Montour’s daughter, Rachel Montour, age 12. The drawing was inspired by the artwork in The Sacred Tree.4
Figure 1. The Wheel of **The Four Directions**

Figure 2. The Wheel of **Colors**

Figure 3. The Wheel of the **Elements**

Figure 4. The Wheel of the **Constitution of the Human**

Figure 5. The **Basic Alchemy Wheel**

Figure 6. The Wheel of the **Life Energies**
a physical, mental, and spiritual device that can enable its users to come into attunement with the cosmic and natural forces in which they are immersed and have their being, and find harmony with their environment and within themselves.\textsuperscript{3,4}

Within the Medicine Wheel are several different layers of meaning. In Native American wisdom, the entire manifested world was vitalized by four primary forces: the Vibratory Force, a power with oscillatory elliptical movement like that of a planet; an intermolecular Binding Force, a power with centripetal movement like gravity; an electromagnetic Light Force, a power with wave movement; and a Life Force, whose presence can be experienced but can never be seen or measured. The Life Force is the power that makes a great oak tree from a tiny acorn or a gigantic grizzly bear from a single egg and sperm. It is the power that makes each of us aware of our own uniqueness that gives us our consciousness and awareness.

Crucial to the understanding of the Medicine Wheel is the knowledge that Native American cosmology is a science not of materialism but of mind and spirit. All that exists is seen as a manifestation of thought. “Every part of the physical universe and every living thing on the Earth was seen as having its origins not in the material but in the spiritual and mental.”\textsuperscript{3,9} The physical world is the manifestation of the mind of Shonkwai’tison—the Creator—imbued with differing amounts of the four primary forces. Even while in manifestation, minerals, plants, animals and humans are in a state of continuous change. “The whole of Nature and of existence was thus regarded as a ‘coming into being’ and a ‘going out of manifestation,’ and its essence was not material but spiritual and mental.”\textsuperscript{3,9}

**Origins of the Medicine Wheel**

The Medicine Wheel has been handed down from generation to generation in oral form. Its message was made available to the general public with publication of *The Sacred Tree* in 1985.\textsuperscript{4} Its story tells of the Great Paradox: Everything comes out of No-thing and to No-thing Everything returns. Out of No-thing (the Great Spirit) came the Great Everything (Shonkwai’tison), whose name means “He who creates or makes all things, beings, bodies possible.” Another translation of Shonkwai’tison is “He who made possible our bodies with perfection.”

From all this, the shamans knew “a universal and unvarying cosmic law that no Force or Matter is ever destroyed or lost or comes to an end—it merely changes its form and the way it manifests. Nothing ends, but only follows a cycle of change. Everything that manifests comes into physical being and goes out of manifestation only to return to manifest once more in accordance with the Circle of Change.”\textsuperscript{3,4}

This is the teaching of the Medicine Wheel—that everything comes from the same source of all existence, Shonkwai’tison, the Creator. From the Creator all things come into existence; and to the Creator all things return.

**Structure Theme: Sets of Four**

Fundamentally, the Medicine Wheel’s four quadrants represent the Four Primary Forces or the Four Great Powers. Recall that “these Four Great Powers were intelligences created by the Great Spirit in order to bring the universe into manifestation and to keep it in being.”\textsuperscript{3,4} These Four Great Powers were seen as “Spirit ‘beings,’ who expressed not so much the force themselves but the intelligence of directing Mind that exercised those forces.”\textsuperscript{3,4} The Medicine Wheel shows these Spirit ‘beings’ in their chief capacity as literally the caretakers of the universe. They are shown on the Medicine Wheel as the four spokes denoting the four cardinal directions of the universe: East, South, West, and North. These directions are known also as the Four Winds (Figure 1).

“The power of the Spirit of the East is the power of illumination that opens the spiritual eye and brings enlightenment and discernment. It is the power of new beginnings and of fresh new life. The color of ‘the Spirit of the East is yellow—the color of the rising sun and of illumination and enlightenment.’”\textsuperscript{3,4} The power of the Spirit of the South is the spirit of rapid growth, exploration, experience, and investigation; it is the power that guides and grows. It is the power of trust in feelings and intuition—the natural trust of the child. “The color of the Spirit of the South is red—the color of vital energy and of the lifeblood.”\textsuperscript{3,4}

The power of the Spirit of the West is the power of strength and introspection.\textsuperscript{3,4} It is the power of growth, which enables realization to develop. It is the power of growth to full maturity. It is the power of self-examination. “The color of the Spirit of the West is black—the color of the formlessness from which all form comes.”\textsuperscript{3,4}

“The power of the Spirit of the North is the power of renewal and of the quickening of the spirit. It is the power of Winter, when nothing appears to be growing but when Mother Earth is gathering her energies for springtime to come. It is the power of...”
concentration and clarity of intent. The color of the Spirit of the North is white, regarded as the color of perfection because it is the sum of all the colors.

This basic configuration—a circle divided into equal quadrants—can then be used to depict many other relationships, always in sets of four.

The four colors of the Color Wheel (Figure 2) also teach us that the four symbolic races—Red, Yellow, Black, and White—are all part of the same human family. We are all brothers and sisters living on the same Mother Earth.

The Medicine Wheel teaches us of the four elements (Figure 3) and their relationship to the primary forces. The element associated with the intermolecular Binding Force is the Earth. The element associated with the electromagnetic Light Force is Water. The element associated with the oscillatory elliptical movement Vibratory Force is Fire. The element associated with the Life Force is Air.

Of particular use to myself and some of my patients is the Medicine Wheel's conceptualization of the individual as having four parts (Figure 4): a spiritual self, which can be likened to elemental Fire in the East; a physical self, which can be likened to elemental Earth in the West (ie, inertia, stability, solidity); an emotional self, which can be likened to elemental Water in the South, emotions being our energies in a fluid state; and an intellectual self, which can be likened to elemental Air in the North, air energy being similar in nature to mental energy, a quick coming and going, vanishing without being seen, thought and air being equally elusive.3

Balance and Health

The Medicine Wheel constitutes who we are as individuals. People who are at ease with themselves, content, happy, and maximally productive; who can share, care, and trust; and who are respectful have strength and balance in all quadrants of the Medicine Wheel and in all segments of life: the spiritual, the emotional, the physical, and the intellectual.3

Spirituality is that part of self which believes in the connection of all things. Spirituality is having a sense of connectedness with all other creations of the Great Spirit. This connectedness allows for an inner awareness of the unity of all things, animate or inanimate. The related direction, East, is the direction for learning about sharing and love.

Emotionality is that part of self which can touch all other things through feeling. In our emotional self, on the South of the circle, we “touch all other things through feeling” with trust and innocence, finding excitement in discovery and joy in the awareness that new knowledge brings. South is the direction for learning about honesty and trusting. Through personal and clinical experience, the greatest imbalance in most people's lives is most commonly found in this quadrant of emotion.

Physicality is that part of self which recognizes and nurtures the body and the environment in relation to the cycle of life and death of all other things. Our physical self is located on the West side of the circle. The West is the place for looking within; the realm of the adult; and the direction for learning about respect, kindness, and activity that nurtures the self and all others.

Intellectuality is that part of self which seeks knowledge, understanding, and wisdom. The intellectual self also requires that knowledge be put into action. Our intellectual self is located at the North of the circle. North is also the place of the elders and is the direction for learning about caring.

Balance thus equals wellness equals health and requires alignment.

Imbalance and Symptoms

Imbalance within the Wheel causes disorder and unsettles a person's life; causes unwellness and ill health; and causes symptoms. Thus, in my experience, the Medicine Wheel achieves its greatest clinical utility with patients who present with chronic complaints without objective historical, physical, or laboratory evidence of pathology. Patients who have vague complaints, symptoms related to multiple organ systems, frequent visits, thick medical charts, numerous consultations, and numerous tests alert me to the possibility of imbalance in the patient's life.

In my own life experience and in my clinical experience with patients, the most common source of imbalance for most people lies in the emotional quadrant. This quadrant encompasses important lessons: learning to talk, to trust, and to feel. These capacities are damaged if a person is raised in an environment where a loved one is abusing alcohol, if a person has suffered emotional, physical or sexual abuse, or if a person has experienced other major traumatic events. Within the emotional quadrant, South is the direction of giving; its opposite, North, is the direction of receiving. West is the direction of holding; its opposite, East, is the direction of determining (Figure 5).
Superimposing the Wheels shows that our energy system was designed to be expressed in the most balanced way, ie, to “Determine with the Spirit,” to “Receive with the Mind,” to “Give with the Emotions,” and to “Hold with the Body.” (Figure 6).

To change the way these forces are used is to create disharmony and discord both within and without. The most common way these energies are changed is to interchange the South and the West, thereby “holding with our emotions and giving with the body ... By holding onto our emotions, we lock up our heart.”

Three rules of survival govern families in which trauma is occurring: “don’t talk, don’t trust, don’t feel.” Although these rules help a young person to survive the chaos of trauma in the family, the rules become detrimental as the young person ages. Our emotions are alive: they have an energy, a force, and a strength. If our emotions are not allowed expression through the heart, through the voice, and through the mind, this energy can—and will—go elsewhere.

Patients who have lived with the legacy of “don’t talk, don’t trust, don’t feel” and with a history of having been traumatized are emotionally cut off from conscious, daily life. These patients hold on to what should have been given away: their emotions. This tremendous emotional energy (and pain) roiling within the unconscious without a safe outlet must be expressed elsewhere. For some people, this energy is directed into somatic symptoms—headache, neck pain, low back pain, body ache, abdominal pain, pelvic pain, fatigue, forgetfulness, depression, or anxiety (to name but a few). In my opinion, this redirection of energy is the major root of addictive behavior, an unconscious effort to “medicate” oneself against psychic pain. I do not mean to imply that these symptoms are always explained by imbalance in a patient’s life: Each symptom has its own differential diagnosis that must be considered by the astute clinician. In my experience, however, the Medicine Wheel approach can be useful when other possibilities have been exhausted and the patient remains distressed.

**Sharing the Medicine Wheel with Patients: The Road to Wellness**

Imbalance in a patient’s life should be considered in the differential diagnosis of vague or refractory symptoms. The Medicine Wheel approach is not for every patient every time but is a useful approach for some patients some of the time. I have often found the ability to share my understanding of the Medicine Wheel with patients to be very rewarding, both for my patients and for myself.

When I suspect that a patient’s symptoms may be related to imbalance, an empathetic approach is crucial if the patient is to accept the process. When I lack a thorough background on a patient’s extended family, I drop pen and chart, make myself comfortable, and say, “I do not know you very well. Can you tell me about yourself and your family?” I then proceed with additional specific questions designed to inform me about the patient’s background:

“Married?”

“Children?”

“Parents alive?” (If they are not, I ask the year they died, their ages at death, and the cause of death.)

“How many brothers and sisters? Their health problems?” (Addiction histories will often surface here.)

“What number sibling are you?”

“Any history of alcohol use in your family when you were growing up?”

If the patient acknowledges a family history of alcohol use or trauma, I ask the following: “Do you know the rules of survival in a family where trauma or abuse is occurring (‘don’t talk, don’t trust, don’t feel’)?”

“Have you ever experienced physical, emotional, or sexual abuse?”

At this point, I explain that the consequences of abuse and the legacy of “don’t talk, don’t trust, don’t feel” are a storehouse of unresolved inner pain that has nowhere to go. I explain that this emotional energy requires release and that if it is not allowed expression through the heart, through the voice, and through the conscious self, it will come out elsewhere.

I then ask patients where they think these energies might go and what they might cause. Often, patients name the same symptom that caused them to seek medical consultation in the first place! I then try to frame the patient’s symptoms in the context of their past. “People who have experienced trauma and abuse can often suffer from these kinds of symptoms. They’re real, they’re there, they’re interfering with your quality of life and they need to be dealt with.” This is often a good time to actually show the Medicine Wheel to the patient and to discuss it briefly.

“But Doctor, I feel so horrible. My [head, neck, back, stomach, pelvis, etc] is killing me!”

“Yes, it is very difficult,” I answer. “The worse you feel, the more your body is sending you a message
that something is not right. This is a complaint and a cry for help, a cry for you to help yourself. I can suggest treatments and prescribe medications to help you with your symptoms, but they will not ever go away unless and until you can address their cause. The answer is not in tests or pills or specialists. The answer is in finding and dealing with inner pain, in learning how to talk, to trust, and to feel. The answer is in finding yourself and in seeking for yourself the balance of the Medicine Wheel. The answer is in counseling."

In this way, physicians can assist patients to embark on their own journey to wellness, a journey whose importance lies not in a final destination (for there is none) but in living day-to-day and moment-to-moment, focused on the present, cognizant of the past, and with enough awareness to struggle continually to separate past from present. The challenge for the patient is to actually begin this journey. Some are not yet ready to hear or understand the answer is not in tests or pills or specialists. The answer is in finding yourself and in seeking for yourself the balance of the Medicine Wheel. The answer is in counseling."

in counseling."

In this way, physicians can assist patients to embark on their own journey to wellness, a journey whose importance lies not in a final destination (for there is none) but in living day-to-day and moment-to-moment, focused on the present, cognizant of the past, and with enough awareness to struggle continually to separate past from present. The challenge for the patient is to actually begin this journey. Some are not yet ready to hear or act. The challenge for the physician is to continue pointing the way to wellness according to the patient’s state of readiness to change. This new dialogue may require repetition before patient action occurs. After suggesting this diagnosis and counseling a patient, at subsequent visits the physician can explore where the patient is in the process and thus avoid unnecessary reinvestigation, retreatment, or rereferral. In addition, by encouraging counseling, we honor the first dictation, retreatment, or rereferral. In addition, by encouraging counseling, we honor the first dictation, retreatment, or rereferral. In addition, by encouraging counseling, we honor the first dictation, retreatment, or rereferral.

Compassionate, caring, respectful use of the Medicine Wheel approach achieves three objectives simultaneously:

- It can make life as a physician easier, more fun and more effective by providing rational explanations and treatment plans for “functional” problems;
- It provides patients a framework to identify and deal with the causes for their symptoms;
- It can improve quality and cost-effectiveness of treatment by expanding from the biomedical model to the biopsychosocial model—ie, by encouraging patients to undertake their own journey to wellness instead of seeking unnecessary expensive, unproductive, and potentially harmful testing.

**Conclusion**

Understanding and using the Medicine Wheel has enormously benefited both my personal and professional life. No longer do I groan inwardly when I prepare to enter the examination room and see vague complaints of “back pain,” “headache,” or “fatigue” on the medical chart as the patient’s chief complaint.

Equipped with knowledge of the Medicine Wheel and armed with courage, physicians can begin to accumulate the experience and skill required to venture into this delicate but rewarding area of patient care. They will no longer feel helpless in the face of symptoms that yield no objective findings. They will be confident—even before stepping into the examination room—that they have something to offer to any given patient.

**Acknowledgments**

I would like to thank my fellow Native American physician, Dr Judy Bartlett, for her generous sharing of her knowledge and generiosity in both written and verbal communication. Some of her construction and phraseology I could not improve upon. I am deeply indebted to the wisdom of Kenneth Meadows in his book, The Medicine Way, from which I have liberally quoted. I would also like to thank my colleagues for their encouragement, support, patient listening skills, and willingness to review my first draft: Drs Irwin Antone, Edward McAuliffe, David Mulica, David Price, Carol Phelps, Stephen Godar, Karen Shask, and Bernard Abrams. Thanks also to my teammates on the former Chronic Pain Consult Service for reviewing this paper: Anne Samson, PsyD; Karla Langer, PT; and Sue Samuelson, RN. Thanks to my partner Martha McMillen for proofreading and support. My thanks to Julie Geary for typing. My thanks and love to the budding artist—my 12-year-old daughter, Rachel Montour—for her drawing of the medicine wheel. And finally, my respect, honor, and gratitude to my elders and ancestors, from all Red Nations, who have been entrusted with the safekeeping of the power of the Medicine Wheel. My first exposure was a short ten years ago, to the Wheel of the Constitution of the Human. The knowledge I have gained in writing this paper has only served to increase enormously my respect for The Medicine Way.

References

Laryngeal Tumor by Stephen E. Beebe
Stephen is the Associate Director of MultiMedia Communications, California Division, managing the Graphics and Photography sections of that department.
A Conversation With Jed Weissberg, MD, On Defining Permanente Medicine

(Jed Weissberg, MD, is the Associate Executive Director for Quality and Performance Improvement at The Permanente Federation, where he has led efforts to better understand the meaning of Permanente Medicine. Before joining the Federation in February 1998, Dr. Weissberg served as PIC at the Fremont Medical Center in Northern California. Interview conducted by TPJ Communications Editor, Jon Stewart.)

The Permanente Journal: Dr. Weissberg, when you joined the Permanente Federation, one of the first things you did was initiate a systematic approach to defining and talking about Permanente Medicine. Why was that such a priority for you?

Jed Weissberg, MD: Actually, I'd never heard of Permanente Medicine before I came to the Federation. But Jay Crosson (Executive Director of The Permanente Federation) and everyone else there was talking about "Permanente Medicine" and "Permanente Practice" as if it were common knowledge. So after about a week, I finally got up the courage to ask Jay, "What's this thing you call Permanente Medicine?"

Well, it turned out he had a very clear idea in his own head of where this all went, but he was thinking mostly in terms of the structural and accountability issues inherent in the Permanente Medical Groups—things like self-governance, self-management, and group responsibility. Those are the essential principles by which Permanente Medical Groups have organized themselves and held themselves accountable, and they really do seem to define what's unique about the way we organize ourselves. But when some of us sat down and tried to flesh out those concepts in terms that would have a more emotional reality, we realized that there had to be another side of the picture, one that represented the clinical and patient side in addition to the organizational qualities. And that's what we've come to call the "performance principles" of Permanente Medicine—quality medicine, the Permanente-Patient relationship, and resource management. These concepts, of course, are all interrelated.

TPJ: Why is it important to articulate these principles? Haven't they been operative all along without a formal definition?

JW: Well, remember that Sidney Garfield, who started this whole thing, defined what he thought was unique about the Permanente way of organizing and delivering medical care. We're all familiar with those elements—what we call the "genetic code"—things like prepayment, group practice, prevention, comprehensive coverage, and physician responsibility for medical care. But as the program expanded into new regions, various medical groups started introducing variations on themes in terms of incentives and approaches to care and their own kinds of delivery systems. I think we still had the impression that we were basically different from everyone else and similar to one another, but it was getting harder to articulate that that was the case. It may be true that for a long time it didn't really matter, but by the 1990s, when everyone else was trying to do "managed care," we got to the point where we really did need to differentiate ourselves from all the rest of managed care, which was taking such a bashing in the press. That meant that we needed to have a clearly defined identity. We needed to really understand among ourselves—and then communicate to others—what it is that makes us different.

TPJ: It wasn't just the mass media doing the bashing. The professional press was attacking some of the underlying principles of Permanente Medicine, as well.

JW: Yes, like those articles in the New England Journal that were criticizing the so-called "distributive ethic" of prepaid group practices. They were saying basically that physicians could not provide optimal care for each of their individual patients and for the entire... what we call the 'genetic code'—things like prepayment, group practice, prevention, comprehensive coverage, and physician responsibility for medical care.
population of patients under the group’s care at the same time. They implied that prepaid group practice physicians had become “double-agents,” acting on behalf of the health plan, or of third-party payers, instead of on behalf of their patients. And they were saying that population-based care means deliberately providing poorer care for some patients than for others.

These were very powerful messages, coming from a powerful professional journal, and they went to the very heart of Permanente Medicine, the ethic of prepaid group practice. So, in some ways, what we were doing in trying to articulate the principles of Permanente Medicine was to restate our claim to professionalism around a core set of ethical beliefs. I suppose it was not unlike the challenge that Garfield and the other pioneers of Permanente Medicine faced from organized medicine back in the 40s and 50s.

TPJ: It’s interesting that this initiative also came about at a time when the medical groups were reorganizing themselves at the national level vis-à-vis the health plan. Was that relevant?

JW: I think so. This new emphasis on understanding the uniqueness and the strength of Permanente Medicine coincided with the creation of the Federation, which had enabled much more interaction among the medical groups throughout the program than had ever before existed. And I think the Permanente leadership saw that there were actually some pretty significant differences among the regions in the ways they were delivering care—especially in some of the regions that were having difficulty. This naturally made the leadership want to figure out what was working and what wasn’t. And of course much of the weakness was in areas where the delivery system was at variance with the principles that made

The Principles of Permanente Medicine

The ongoing effort to articulate the basic principles and dimensions of the professional identity and practice style known as Permanente Medicine has resulted, to date, in the following definitions:

Group Responsibility:

Physicians sharing a group ethic that promotes shared responsibility and accountability for the care of individual patients and an entire member population in a capitated environment

- Group Capitation—Prepayment for healthcare services allows physicians to be prudent stewards of healthcare resources
- Dual Responsibility—Physicians are responsible to the individual patient and to the membership for providing quality care and service that is affordable
- Multi-specialty Collaboration—Physicians work together to ensure the total health of our members using a shared medical record
- Professional Development—Culture that is dedicated to life-long learning in the art and science of medicine, and in the management of a high quality care delivery system

Self-Governance:

Physicians determine Medical Group policy through elected, representative physician leadership

- Partnership—Physician peer relationship that encourages participation in Medical Group affairs, builds greater commitment to quality and supports a long-term perspective
- Representative Decision Making/Due Process—Physicians have a right and a responsibility to contribute to group decisions
- Physician Leadership Development—Physician leaders and future physician leaders develop the necessary skills to provide the best leadership to the Medical Group at every level of management
- Ethical Compensation—Salaried physicians and other compensation practices that support physicians in making the best clinical decisions for patients
- Access to Capital—Capital is required for investment in new technologies, facilities and improving the delivery system to continue to meet the needs of our membership

Self-Management:

Physicians direct all clinical decisions and the design and operations of the care delivery system

- Care Teams—Physician-led, multidisciplinary care teams bring together expertise to meet the diverse needs of our members
- Management of Medicine/Operations—Physicians formulate all clinical policy and actively participate in the design of every level of our care delivery system
- Co-Management of Business—Physician leaders partner with health plan executives in making critical operational and business decisions
- Performance Improvement—Physicians directly oversee and measure key aspects of the care delivery system and analyze variation, which fosters innovation and improvement
us strong in our core markets. There was a sense of needing to get back to first principles—but first to figure out what they were.

TPJ: That was also a time when the leadership in Oakland was developing what is now known as the KP Promise, or brand strategy, which puts a lot of emphasis on positioning KP as a high-quality, service-oriented delivery system. Is the KP Promise compatible with Permanente Medicine?

JW: Very much so, fortunately. Because I think the KP Promise, with its focus on quality medicine, really did grow out of an understanding of the organization’s traditional strength, which is the physician-directed delivery system. The KP Promise includes that notion of physician responsibility, which is at the heart of what we call “group responsibility” and “self-management” in Permanente Medicine. And the Promise is also built around the performance side of the Permanente Medicine paradigm, with its emphasis on quality medicine. In fact, in some ways, the KP Promise might be said to represent the third, invisible side of the Permanente pyramid, with the structural principles and the performance principles on the other two sides. What is different about the Promise is that it incorporates perspectives that have not been articulated as aspects of Permanente Medicine, such as the essential role played by our employees and the interests of KP members. The Promise blends those interests more explicitly than the principles of Permanente Medicine, which are more self-reflective from the medical group point of view.

TPJ: What was the process you followed in identifying and defining the principles of Permanente Medicine? How much input did you get from beyond the 27th floor (the Federation Executive Offices in the Ordway Building in Oakland)?

• Peer Review—Physicians/Staff receive feedback and training on clinical and service performance based on continuous peer review and member feedback

Quality Medicine:

Health care experiences and outcomes that set the quality standards for American medicine

• Evidence-Based Medicine—Disseminate and implement Program-wide clinical guidelines by sharing best practices and the collective clinical experience of 10,000 physicians
• Integrated Member Care/Service—Integrate care across multiple care settings, populations, life stages, specialties and care teams, using ubiquitous access to clinical information
• State-of-the-Art Clinical Decision Making—Developing a national clinical information system to integrate information at the point of care—facilitating the rapid flow of clinical knowledge using common data elements and terminology
• Preventive Care/Community Health—Promote healthy lifestyles, disease prevention, health risk assessment, education, and communication
• Advancing Medical Knowledge—Fund and perform research, contributing to the continuous improvement of our system of care and medical knowledge

Permanente-Patient Relationship:

Patients, physicians, health care practitioners, and staff work as a team to make care decisions and meet the patients’ needs

• Partnering In Care—Patients are given the educational tools and empowered to participate as partners in decision-making and to share responsibility for their care
• Continuity of Care—Stable physicians and entire care teams continue in their practice with little turnover
• Care Based on Trust—Patients are assured confidentiality and our best professional judgment by a structure that gives physicians and patients sole responsibility for care decisions
• Culturally Competent Care—Members’ cultural diversity and health care preferences are respected and accommodated
• Support Systems—Operational systems/procedures (patient registration, appointment scheduling technology, Call Centers) provide the environment necessary to foster the Permanente-Patient Relationship

Resource Management

Physicians determine appropriate use of members’ resources across multiple care settings to improve the health outcomes of our membership and ensure affordable health care

• Utilization—Physicians and members together control the entire episode of care, which enables us to determine the appropriate care in the appropriate setting at the appropriate time
• Staffing—Use physician-led care teams to leverage the skills of physicians and other health care practitioners to effectively meet needs of member
• Cost of Care—Provide effective and efficient diagnosis and treatment by reviewing patterns of care with the aim of improving quality and eliminating waste
JW: A lot, ultimately, and we’re still working at it. But it needs to be said that Jay Crosson and a handful of Federation staff people did a lot of the early conceptual work, and most of it has stood up under pretty intense reexamination—especially those three structural principles that Jay identified: group responsibility, self-governance, and self-management. People will argue about the exact labeling, but there’s a lot of consensus around the meaning. And, of course, even those principles were really an outgrowth of elements of the genetic code, so the debt goes back to Garfield.

What I started doing was collecting a lot of mission statements, orientation materials, and strategic plans that various PMGs had worked on, where they had tried to identify basic principles of practice. The Colorado PMG had a very well thought out set of principles, and so did some others, like Georgia. It was surprising how similar those principles were, even though the groups had never shared them before. So we tried to identify the common threads among them and then feed them back to regional leaders and various reactor groups, including the Permanente Executive Committee and the day-long Permanente Medicine roundtable discussion in Colorado, where virtually every PMG was represented (see “Permanente Medicine Roundtable” article, p. 45).

Over the last couple of years, between Jay Crosson and myself and a few others, we’ve talked to dozens of groups—mostly physician groups—about Permanente Medicine. Every time we do it, the definition takes on a little more clarity. We keep testing it and looking for ways to make the definitions operationally useful, such as in the performance analysis and improvement work we do. And, so far, we’ve gotten remarkably positive feedback. People really like to talk about it, I think because it provides a common language for understanding some very complex ethical issues that are common to all of us.

TPJ: It’s easy to see how this work can be useful in terms of differentiating KP from the bad guys of managed care in the public arena, but how is it useful internally and operationally? How does it relate to the day-to-day provision of medical care?

JW: What these principles do is give us a framework for holding ourselves accountable to one another and to our patients for the things we say we believe in. If these principles really define our professional beliefs about the best way to provide health care, then we need to translate them into objective measures of accountability. We need to be able to say, “We practice what we believe in, and here’s the data to prove it.” So a lot of the work of defining Permanente Medicine has been defining objective measures for each of the principles, especially the performance principles around quality and resource management, but also the structural principles like self-governance and self-management. Do we really govern ourselves through representative leadership and due process? Does every PMG have the appropriate structures and processes in place for self-management and resource management? And can we point to appropriate outcomes measures as evidence of our accountability?

Remember, the medical directors of all the PMGs have agreed to hold one another mutually accountable for all performance—clinical, service, everything. That agreement really gave new meaning to the notion of “flying the Permanente flag.” If we’re going to call ourselves Permanente Medical Groups, that has to mean something specific and measurable, and Permanente Medicine gives us the conceptual framework for developing those specific measures. This part of the work is now in the hands of a number of national and interregional work groups, such as the KP Performance Review Committee, which recommends performance measures to the KP Partnership Group, the organization’s top management group. The Care Experience Council is doing another key part of the work, focusing on measures of access and service.

TPJ: Those groups are all joint Permanente-Health Plan groups. But apart from that connection, where does KFHP fit into Permanente Medicine? Or doesn’t it? Can you have Permanente Medicine without Kaiser Foundation Health Plan?

JW: That question borders on treason. But thanks for asking it, anyway. Because in all truth, you’re not the first. It’s a legitimate question that’s worth exploring. However, in our current conception, KFHP has been an integral part of our understanding of Permanente Medicine ever since we started looking at it. Before I ever got involved, Jay Crosson talked about the principles of Permanente Practice existing within the context of an exclusive partnership with a not-for-profit health plan, and around here that means KFHP. Without that partnership, it’s hard—maybe not impossible, but much harder—to imagine how Permanente Medicine could stand alone. I think the partnership adds a lot to the overall equation that makes up Permanente Medicine.
The following conversations have been edited from a day-long Permanente Journal roundtable discussion on Permanente Medicine held in Denver in late 1998. Participants included Lee Jacobs, MD, Associate Medical Director, TSPMG; Genie Komives, MD, then-Acting Director of the North Carolina PMG; Don Parsons, MD, Associate Executive Director of the Federation; Les Zindle, MD, Associate Medical Director; SCPMG; Al Mariani, MD, Chief of Surgical Services, HPMG; David Shearn, MD, Director of Physician Education and Development; TPMG; Jed Weissberg, MD, Associate Executive Director of the Federation; Andy Wiesenthal, MD, Associate Medical Director, CPMG; Walid Sidani, MD, Associate Medical Director, OPMG; Marty Lustick, MD, Associate Medical Director, MAPMG; Paul Wallace, MD, Director of the Clinical Practice Guidelines Program in the Northwest; and Federation staff members Leslie Francis, Sally Stephens, and Jon Stewart.

**Why Define Permanente Medicine?**

**Les Zindle:** This work is not only a good opportunity to do some external communication about who and what we are, but it’s also a way of dealing with some of the moral or ethical issues Permanente physicians are facing. There is so much media and public discussion about “managed care,” and it focuses on anecdotal “horror” stories, which are not representative of the quality of care provided by Permanente physicians. More clearly defining Permanente Medicine could counter some of that, both internally and externally.

**Al Mariani:** There are horrible free-market abuses going on in health care, especially by our for-profit competitors. It is essential to the survival of Kaiser Permanente that we find a way to differentiate ourselves from them. Not only from the for-profits but also from the staff models where the physicians work for the health plan. In our group model, we work with the health plan. We need to promote the value of the independent, prepaid medical group model in the national consciousness. It represents some essential qualities that few people outside of the organization—and a lot of people inside of it—don’t appreciate.

**Walid Sidani:** A definition of Permanente Medicine is sorely needed. It should permeate several activities and could enhance our ability to communicate, in a common language, our values and principles. We should use it in our recruitment and orientation efforts so that candidates and new physicians know what is expected of them.

**Marty Lustick:** I think one of the critical pieces of this work is to answer the question: What is it about Permanente Medicine that distinguishes us from the rest of the world and allows us to work out some of the tensions and the ethical dilemmas that confront physicians in the era of managed care? If we can clearly demonstrate and communicate that our solutions to these dilemmas are the most meaningful ones for this society, that’s going to be a critical message.

**Lee Jacobs:** I think we need to be clear that we’re not creating anything new. We’re just defining what’s been there all along—what makes us unique. I would also emphasize that the language we use is critical. We all use terms differently, and we may mean the same thing or we may not. It would be helpful if we could end up dealing with the language so that we could all use the same terms and know what we mean when we talk about Permanente Medicine. Language is very powerful.

**Genie Komives:** I agree about the language. But the discussion documents we’re dealing with—the work that’s already gone on in this project—do include some new ideas. For instance, this work gets into setting some really concrete metrics to decide whether or not we’re living up to what we’ve defined. I see the potential for a sense of threat in there—like, if you don’t measure up, you’re no longer a Permanente Medical Group. I don’t know if that’s necessarily what we want to convey.

**Jed Weissberg:** Good point. But maybe there’s a dark side to this. What if you don’t make the grade? Or what if there are issues of divestiture, as there have been in parts of the Program? And what would constitute Permanente Practice even outside a relationship with a Kaiser Foundation Health Plan? These issues get to another question, which is: Should this definition describe our current state or our future, aspirational state? That’s especially relevant when we talk about what constitutes “quality medicine,” which is one of our performance principles.

**Genie Komives:** To the extent that we’ve not necessarily done a good job of communicating what we are, there’s an aspirational and demonstrational quality to this work. But that doesn’t necessarily mean aspiring to be different than we are. We often feel like we’re there in terms of quality goals, but we just can’t prove it.

**Marty Lustick:** I think in some ways it is also a value statement, which hopefully describes who we are, what we aspire to be, and the standard we hold...
for ourselves. Defining Permanente Medicine is part of what we are. It’s actually having a set of standards that we hold everybody to and committing to the environment of the learning organization.

**Does Permanente Medicine Depend on Kaiser Permanente?**

**Jed Weissberg:** When Jay Crosson (Executive Director of The Permanente Federation) started talking about the basic structural principles of Permanente Medicine, or Permanente Practice, he was talking about it in the context of a not-for-profit health plan. The issue is being revisited in this effort to better understand what it is about Permanente Medicine that makes it unique. Because, with some groups looking at possible divestiture, it may be necessary to explore whether you can practice Permanente Medicine in a different context.

**Les Zendle:** The issue of practicing Permanente Medicine outside the context of a not-for-profit health plan is not the discussion that worries me. I have to say that I don’t particularly want to practice Permanente Medicine without this particular not-for-profit health plan—Kaiser. To me, they have to be practiced together.

**Jed Weissberg:** But some Medical Group leaders nonetheless feel the need to have at least the intellectual experience of thinking this through. This is a brave new world, and we have to give ourselves some intellectual space to explore these concepts.

**Lee Jacobs:** It may be that Permanente and Kaiser are so intertwined in our definition that it’s not Permanente Medicine without Kaiser. I’m not sure that’s the case, but I’m saying we need to have that discussion. Basically, I agree with Les that I wouldn’’t know how to practice Permanente Medicine outside the business competencies that Kaiser brings to the definition. I don’t think we could do it without them.

**Marty Lustick:** I think that focusing on what Permanente Medicine means in the absence of Kaiser actually serves two positive roles. One is that it helps us understand where the gaps are in our performance and what we need to do to improve, no matter what happens in the larger partnership. But also, it ultimately makes it less likely that we’ll have to deal with that possibility; whereas if we don’t plan for it, the likelihood of it actually happening may increase. If the partnership is going to thrive in the long run, we have to look at standing on our own two feet. To the extent that we’re successful at driving our own performance as a medical group, it becomes less likely that we’ll have to go outside the partnership.

**Paul Wallace:** We have to be careful about what we mean by “Kaiser.” There’s Kaiser the corporation, but there’s also a set of values that are implied by that name. Look at the relationship with Group Health. There have been tensions around the affiliation, certainly, but there’s a very close parallel with our values and theirs. I think it remains conceivable that a Permanente Medical Group could have a very similar relationship with a different organization so long as it had similar values.

**On the Key Principles of Permanente Medicine**

**Lee Jacobs:** I would say there are three principles that are key. Number one is physician leadership, which should be a stand-alone bullet, top of the list. That’s distinguishing. Self-governance is just an aspect of that, not a separate principle. The second one is the idea that we are the best advocate for patients—however you wordsmith it. And the third thing is the group ethic. It’s essential to what we are.

**Marty Lustick:** I think that more than anything our group ethic distinguishes us from the rest of the world as a kind of protection against making the wrong responses to these ethical issues we all face. Because we’re part of a large group, we have to struggle and come up with meaningful answers to these questions. We actually do hold each other to a standard, whatever that standard is. For instance, we struggle over any little innovation in our compensation system, asking how it might affect physicians’ decision-making. Private practices don’t protect themselves that way.

**Al Mariani:** Just to carry the argument about physician leadership a little further, I agree that the culture of physician leadership needs to be at the top. The regions that have been the most stable over time are the ones that were steeped in that culture. Leadership really is the center. And this isn’t fuzzy rhetoric. I’m talking about coming up with $100,000 or whatever to run a peer-to-peer survey or a quality-of-service survey, or all the other measures that we do on the really basic things. By measuring them, you send a message to the frontline that this is what the leadership expects; this is what we’ll measure. And then, a real leader has to have the courage to do something about the outcomes. That needs to be our culture—defining the essential things, measuring them, and then acting...
on the outcomes. Our medical group structure gives us the ability to do that.

**Marty Lustick:** Another thing that distinguishes us is our ability and commitment to be a learning organization, which is how we are able to achieve all those performance-related principles, like great medicine. Because of the way we’re organized—as a large group practice with an information system infrastructure—we have a unique opportunity to be a learning organization in ways that others don’t.

**Don Parsons:** We’ve talked a lot about the importance of the physician-patient relationship and being an advocate for the patient; and yet, we’ve been designing adult primary care models based on collaborative care teams where physicians may not in fact have a lot of contact with many of their patients.

**Lee Jacobs:** I don’t think that’s incompatible with the patient-physician relationship principle. There has not been much discussion here about collaboration in multispecialty care teams, which is clearly a part of Permanente Medicine. And I don’t think that team-based care is at all at odds with acting as the best advocate for patients.

**Les Zendle:** I’m a huge advocate of advance practice providers on care teams. But in many systems they are used as access “barriers” to doctors. They sometimes aren’t being utilized to bring their distinctive competencies to Permanente Medicine. I’m hoping that the primary care models that are being developed augment the relationship between the patient and the physician rather than create a barrier.

**Putting the Principles of Permanente Medicine into Practice**

**Walid Sidani:** As we agree on the principles, how do we assure that they are practiced? Our principles may challenge exactly what’s happening today, such as team-based care. If what’s happening today really is against a principle, then our activities need to change. Most of the time, we expend a great deal of energy developing principles; yet, we don’t spend any time really challenging what we are actually doing against the principles. If we state that the physician-patient relationship is a principle, then we need to assure we’ve defined what that means throughout our medical groups and to our members.

**Genie Komives:** That’s right. As part of the measures and the monitors, we must ask members several questions. Do you feel as though you have a relationship with your primary care physician? Do you feel as though your care is well coordinated? Do you feel there are any barriers to seeking the care that you need, when you need it?

**David Shearn:** Genie’s point raises an issue about the proposed principles that concerns me. They don’t explicitly reflect a bias toward the patient’s needs or the patient’s preferences or the patient’s view. We are discussing what we’d like the principles to say based on our own views, needs and preferences, but the patient’s voice isn’t here. It might be interesting to actually bring patients into a forum like this and discuss it.

**Lee Jacobs:** I’d be cautious about that. We’re trying to define and articulate who we are. And in fact, what we are may not be the appropriate choice for all patients. We’re not trying to model this so it’s attractive to patients. I don’t think that’s what the goal is.

**David Shearn:** But patients are increasingly redefining the patient-physician relationship. Increasingly, people are using the Internet and coming into our offices having completed a literature search. As a result, they are telling us what treatment they want. Those patients are redefining what it means to be a partner. I think we can respond to this dynamic more effectively than other systems, because, as a group, we can adapt to things like this by coming up with systematic approaches involving the Internet.

**Paul Wallace:** Yes, that’s part of what’s been lost in these proposed principles by leaving out customized, coordinated care as a stand-alone principle. The customized part implies a relationship with somebody.

**Les Zendle:** This fits right into the discussion around alternative or complementary medicine. It’s true that in some places patients are demanding alternative medicine. But is alternative medicine or whatever else the patient demands necessarily part of Permanente Medicine? It’s a struggle. We have physicians who feel it’s appropriate to provide these alternative therapies, while others feel that if we do this, we might as well sell snake oil.

**Genie Komives:** But we have already defined some principles here that will help us answer these questions by giving us something to evaluate them against. For instance, evidence-based practice is called out as an aspect of the quality principle. Offering alternative medicine may be a patient satisfier, which will improve the patient-physician relationship. But it may not meet the evidence-based medicine criteria. If we line up issues like these against our principles and they don’t meet the criteria, then we can effectively explain why they are not part of Permanente Medicine.
Marty Lustick: But these principles we keep discussing, such as the strong patient-physician relationship and quality medicine, these are things that everyone in health care is striving to provide. It’s just so generic that it sounds empty. What is it about the way we’re trying to practice that distinguishes us from the rest of the world? What makes us Permanente physicians?

Walid Sidani: The challenge we have is to inflect meaning into what we define as our principles. How does this translate into the medicine we practice every day? I think some of our discomfort is based on the gap we are experiencing between our principles and our practices.

Marty Lustick: What do these principles really mean? For example, when we talk about the patient-physician relationship, I can only conclude that we’ll never achieve the level of bonding between our physicians and our patients that existed in my father’s practice. He visited patients in their homes, and patients received their care only from him. What is our concept of the patient-physician relationship? What does it mean to the marketplace? What do we bring that’s unique? It certainly is not the kind of high-touch, individual, emotional bond that others can provide.

Andy Wiesenthal: We need to articulate our unique relationship between a team of professionals and the patient. Let’s say I’m caring for somebody who has coronary artery disease. Perhaps a care management nurse and pharmacist are helping me manage the patient clinically. In addition, a nutritionist helps the team manage the patient’s diet.

As the physician, I am seen as the lead on this team. However, I’m not Marty’s father; I’m not a lone eagle. I work with a number of other professionals who all contribute through me and with me to take good care of people. And the patient maintains a relationship with all members of our team.

Walid Sidani: Exactly—the bottom line is how the patient experiences that team.

Jed Weissberg: So maybe we should be talking about the Permanente-patient experience, which encompasses the broader relationship between patients and the medical group, which ideally acts as a kind of extended care team.

Living Up to the Quality Principle of Evidence-Based Medicine

Jed Weissberg: With all this in mind, can we justify that we’re practicing evidence-based medicine, as our quality principle would demand? And what are we doing about that?

Don Parsons: Evidence-based medicine must be central to what we do. We aspire to practice it, and we create guidelines around it. But do we actually practice it? If we are going to claim that we live by our principles, we’d better be sure that we’re either living up to it or that we couch the principles in terms of aspirational goals as opposed to reality. I would think that we could be challenged on any one of these points.

Paul Wallace: I guess I’d take a step back and say, look at evidence-based medicine as a tool for achieving quality improvement. So the bigger question is: Are we using the tools of quality improvement that include evidence-based medicine? We have to phrase the question right. Are we really committed to improving our practice using the relevant tools? And I’d say the answer to that is clearly yes. For instance, measuring the variation of rates, say in mastectomies, is a commitment to quality improvement, because we haven’t ignored it. Subsequently, we must commit to ask what the appropriate rate is. I would say that is totally consistent with practicing evidence-based medicine with sort of a colloquial definition.

Les Zendle: Evidence-based medicine means so many different things to different people. To some people, it means that you don’t do something unless you have double-blind randomized control studies that prove that something works. Of course, if we only did things when we had double-blind randomized control studies, we wouldn’t do a whole lot. It’s also used as a reason to withhold certain things or to not do things or to cut costs.

I like the fact that we are constantly looking at data about what we’re doing and the effect it’s having. Our physicians clamor for data. We don’t give them enough data. And there’s nothing wrong with the cycle of physicians looking at data and then questioning its accuracy, especially since nine times out of ten, the data aren’t very accurate. That’s all part of learning and improving.

We also have to be careful when we combine the term “evidence-based medicine” with the term “variation.” No one should expect that we’re going to get rid of all variation in our system or that eliminating variation is even our goal. We need a certain amount of variation.

Networks and Permanente Medicine

Walid Sidani: Where do networks fit in under Permanente Medicine?
Al Mariani: Networks aren’t Permanente, but Permanente must plan to manage networks. Permanente to me is a self-governing group of salaried physicians who have an exclusive financial relationship with an autonomous, regional, nonprofit Kaiser Foundation Health Plan. Anything else to me isn’t Permanente. Of course, this is just my opinion. However, it is an opinion based upon the long observation that more often than not when these principles are compromised, the organization does not do well. Within the framework of partnership the medical group has the responsibility for guiding the Health Plan to appropriate patient care. This would mean managing the networks for patient service and quality of care for those areas of medicine that cannot be internalized by the Permanente Group.

Marty Lustick: I actually disagree, because they may be part of what we need to look at to assure Permanente’s long-term survival. If the population management techniques we’re trying to develop are successful, then we’ll need to promulgate those techniques into our communities. That’s part of contributing to community health. In fact, part of what Permanente Medical Groups can do—and already are doing—is develop infrastructures that manage network physicians, teach them about Permanente Medicine, and support their delivery of Permanente Medicine. I think it’s consistent with where our group is going.

Lee Jacobs: We probably have one-third of our physicians in Georgia practicing without any kind of knowledge of Permanente Medicine. But part of Permanente Medicine is managing those relationships and incorporating the care that’s delivered into our care delivery plans. It’s incredibly restrictive, and in fact, naïve in today’s world to think that Permanente Medicine can only be practiced in a totally self-contained model. I don’t think there’s such a thing anymore.

Al Mariani: I’ve worked with network doctors for 18 years. While they have uniformly been professionally competent, the relationship was mercenary. Some take advantage of us, and some don’t. Their goals are not necessarily aligned with ours—for instance, evidence-based optimal population care. Our careers are tied to the success of our medical group. Theirs are not.

Paul Wallace: I think of it in subsets—the Permanente Medicine we practice within our Medical Groups and the care we delegate, which is really Permanente-affiliated care. But in our increasingly competitive environment, there’s the ability to extend more and more of the principles of the Permanente group practice out into the groups that we contract with. Increasingly, in our contracting, we’re demanding quality measurement and a variety of the accountabilities that we expect from ourselves within the group. To me, the value of Permanente Medicine is to put as much of that into the contract as we can and still get the care we need to deliver to patients.

Marty Lustick: Another way to look at it is to imagine that we were not affiliated with Kaiser. What would we want in order to continue our practice of Permanente Medicine? What would we want our relationships to be with other doctors in the community? Would we potentially bring our expertise in network management to the table?

David Shearn: Luckily, we don’t have to resolve what role networks should play in Permanente Medicine today. But one thing I am observing—since I’ve been involved in these kinds of conversations so many times—is that something’s different about our discussion than others I’ve participated in. We have reached some sort of consensus about our values, and they give us a reference point from which to have this discussion of networks. Not that we’ve reached a resolution, but knowing more clearly what we stand for changes the conversation, I think, in a better way.

Measuring Permanente Medicine

Jed Weissberg: Now that we’ve talked about our principles and their application, how would we measure them to exhibit our responsibility and accountability? What are the most important accountabilities that need to be measured? Do our existing measures get to them, or do we need to develop new measures?

Marty Lustick: In some cases here, we’re talking about principles that address behavioral issues, like governance, making it much more difficult to define the right metric.

Les Zendle: Another thing, are we saying that once we put out a measure, we’ll have to be willing to say that groups will have to meet a certain threshold to be considered Permanente?

Al Mariani: No physician manager can hope to have an accurate sense of how well things are working without measurement. Every day there are tens of thousands of patient interactions. There definitely should be standards for measuring patient service, quality of care, peer-to-peer service, and medical-legal trends at a minimum. It is the responsibility of the Permanente Medical Groups management to measure these and possibly other parameters of good care and then act on deficiencies. One could debate whether standardized measures are required
as long as there is measurement and action based upon these measurements.

**Andy Wiesenthal:** There’s a danger that all that gets measured is the existence within a medical group of proper policies and procedures and that in fact there may be no execution. So where’s the beef? We have to focus on policies and procedures for compliance assessment. For our purpose, we really ought to try to focus much more on actual outcomes wherever we can. And maybe we don’t ask people to meet a threshold initially but rather to provide evidence that the standard is part of their Medical Group’s culture and the activities they’re engaged in.

**Don Parsons:** But don’t we currently have a limited menu we can use today? We could ask whether the group is MDQR- or JCAHO-accredited? Are they a prepaid group practice? Do physicians make the clinical decisions? Do they have a board of directors? These are some of the criteria that would determine whether a group is Permanente.

**Andy Wiesenthal:** I would argue that right now, people will push back and make a really cogent argument that there’s too much change going on to take on new metrics. And we need to recognize that there are differences between regions of the country and allow some slack for that. At the same time, we can let groups know what the endpoint is and what the expectations are once things stabilize for them.

**David Shearn:** Menuing is another way of dealing with this. Give Medical Groups 12 measurements, and ask them to pick, say, six based on their own strategies and local needs. Set a target date for achieving those initial measures, and then ask the group to move on to others.

**Marty Lustick:** Does MDQR look at elements like our group ethic and similar issues as they conduct their work? Do they evaluate groups against what it means to be Permanente?

**Genie Komives:** No, they don’t. My thought is as we define the Permanente Medicine principles or values, we’d clearly want to include measures that differ from MDQR’s. But if we look at the specific measurements within MDQR, are we supposed to come to an agreement or recommendation about establishing a bar and whether that should be regional or national?

**Andy Wiesenthal:** It sounds clear that we’re going to set a national bar. But there are questions about how that’s going to play out, over what timeframe, and how aggressive it’s going to be. Will we start locally and move toward national standards? If we’re going to set a bar, it should be a national bar eventually. It doesn’t have to be there tomorrow or even next year. But the goal is to be able to tell patients that they will get the same high-quality care wherever they go. If we can guarantee that, I think we have something to distinguish ourselves, because nobody else can guarantee that.

**Les Zendle:** We want to identify things that are going to demonstrate our ability to deliver high-quality health care in every Permanente Medical Group. For example, it means that every Medical Group goes through a performance review every year, or MDQR, that the group sets strategic goals that are based not only on what’s going on in their community but nationally, as well as on best practices around the Program. When the group falls short of where they want to be, they put resources toward improving in those shortfall areas. This should happen over a reasonable timeframe.

**Don Parsons:** There’s a widespread perception, at least in the external audiences that I talk to, that if you’re not measuring something, you’re not managing it.

"For our purpose, we really ought to try to focus much more on actual outcomes wherever we can.”

- Andy Wiesenthal

"There’s a widespread perception, at least in the external audiences that I talk to, that if you’re not measuring something, you’re not managing it.”

- Don Parsons

---

Participants of the Permanente roundtable, from left to right: Les Zendle, MD; Paul Wallace, MD; Lee Jacobs, MD; Marty Lustick, MD; Jed Weissberg, MD; Walid Sidani, MD; Al Mariani, MD; David Shearn, MD; and Andy Wiesenthal, MD.
Walid Sidani: I am hoping that Permanente will set some specific performance targets and specific measures. If we decide that certain outcomes are important, and we agree on the measures for them, there is no reason why they cannot be integrated into MDQR. MDQR can then become the organization that determines or certifies Permanente Medicine.

Paul Wallace: This struggle with measurement is so familiar. There’s this dilemma about even figuring out what we want to measure. Then we need to determine whether a metric is associated with it that reflects an outcome or a process. And then there’s the targeting and the surrogate if you really can’t get at it. And then at some point, you have to loop back around and determine whether it’s an important measure. What we probably need to do is just figure how far we can push it and foster an improvement environment. It has to be a long-term strategy with some sort of launch.

Genie Komives: I think looking at ways to ensure that the Medical Group is truly accountable to these principles is important. I think looking at incentives and compensation—the payment structure and how that’s implemented—is a valid activity.

Les Zendle: It sounds like we want to measure some areas that we feel are important but are unsure of how to measure them. Then we’ve got things that we know how to measure, and the reality is we’re not sure how important they are. I’m afraid we could focus on areas that we are able to measure and potentially miss those that are really important—the things that are going to allow us to identify real performance problems. That is not the way to get physicians and professionals to improve quality.

Jed Weissberg: I think we’ve done a really good job of defining a lot of the problems about how to measure Permanente Medicine, even though there are so many dimensions to it. I do not think we have closure on very many questions, but we’ve had a chance to identify the critical issues. Now we need to continue to take these issues to the frontlines, where the final work of defining Permanente Medicine is going to happen.

The Roundtable transcript was edited by Jon Stewart, TPJ Communications Editor, and Randa Ghnaim, Communications Consultant, Program Offices.

Key Physician Roles

“Physicians will play eight key roles in the future: clinical data collector, shaman, health advisor and wellness coach, knowledge navigator, proceduralist, diagnostician, physician manager, and quality assurance specialist.”

Ian Morrison, PhD,
“The Future of Physicians’ Time,”
Annals of Internal Medicine,
The Permanente Medicine Map

Early in the effort to better clarify and articulate the basic principles of Permanente Medicine, everyone involved in the project sensed that the real value of the work was being missed or undermined by the form in which the work was presented—the usual PowerPoint discussion document, in this case running to more than 50 pages of often obtuse, highly abstract language. We all felt a need to get our arms around the concept as a unified whole rather than as a series of discrete principles. We wanted to “see” how all the pieces related to one another and to the historical, professional, and industry environment that helped shape them. Hence, the Permanente Medicine Map.

The map grew out of a series of discussions and focus groups led by Tomi Nagai-Rothe, a graphic artist/facilitator from Grove Consultants, International, of San Francisco. Her firm virtually invented the technique of graphically mapping complex corporate mission and strategy statements to enhance the clarity of strategic thinking and communication. As the map developed, various versions of the 4’ by 8’ graphic were mounted on conference room walls to stimulate work group discussion.

This, then, is the story of Permanente Medicine, the conceptual vehicle (or fleet, in this case) that we depend upon to carry us to a sustainable future.

The Permanente Story, So Far . . .

The Permanente Fleet, representing all the PMGs and manned by physicians, employees, and Health Plan members, sets out upon a hazardous sea in search of the distant shores of the KP Promise, which represents success and sustainability. The Fleet, pushed along by the powerful winds of the group ethic, sails forth from distant historical streams that carried Permanente through the construction of the L.A. aqueduct in the Mojave Desert, the Grand Coulee Dam in the 1930s, the Kaiser shipyards of WW II, and past Lake Tahoe, where the fundamental Kaiser Permanente partnership was hammered out in the Tahoe Agreement in 1955.

Already, the Fleet has encountered the rough seas of the financial crisis of 1997-98, and some medical groups have drifted into the dangerous doldrums of inconsistent performance. Meanwhile, fee-for-service is vanishing beneath the waves, while some competitors are being swept up in a vicious whirlpool of industry consolidation and merger. Ahead lie the hazard-strewn narrow straits and rocky shoals of government regulation, rising medical costs, the temptations of for-profit conversion, and the punishing storms of the managed care backlash. Pharmaceutical sharks lurk in the narrows.

Fortunately, the Permanente Fleet is navigating itself into the Current of Evidence-Based Medicine, which leads through the hazards and into the Sea of Superior Care that will be made possible by new information technology acquired at Silicon Island. What’s more, the Fleet is superbly equipped with the latest navigation technology and with a superstructure of time-tested, ethics-based principles. As illustrated in the cutout in the bottom right corner, the sturdy sails of self-governance, self-management, and group responsibility power each ship of the fleet. And the Labor-Management Partnership is there to hoist the dead weight of labor conflicts that have held us back in the past. In the cutout on the left, the three performance principles of quality medicine, the Permanente-patient relationship, and wise resource management help each ship steer a safe course, aided by the latest in navigational tools, including the Care Management Institute’s clinical guidelines and a robust set of performance measures.

❖
Many of us remember a time when patients visited the doctor with a single expectation: that we could cure their problem. That time is fading into the past as today's members and patients increasingly expect that we be sensitive to the nuances of their cultural heritage. By 2020, 35% of the American population will consist of ethnic minorities—an amount considerably higher than today's 28%.1 Our increasing diversity means that the medical profession must adjust its methods for providing health care to accommodate different cultural attitudes.2,3 Indeed, Permanente Medicine has already begun to develop programs that address this pressing need.

Culturally competent care requires a commitment from doctors and other caregivers to understand and be responsive to the different attitudes, values, verbal cues, and body language that people look for in a doctor's office by virtue of their heritage. The concept of tailoring health care isn’t a new one; we already have medical specialties based on age and gender. Cultural sensitivity is one more dimension of that kind of refinement.

Cultural competence does not require that patients be treated by using the same methods used in their country of origin. However, cultural competency does create a compelling case for understanding the different ways patients act in a clinical setting and for communicating with patients to ensure the best possible clinical outcome.

Our increasing diversity also compels us to look within our organization to identify the opportunities available to a wide spectrum of individuals. We must ask ourselves whether our doctors and other employees reflect the communities they serve. If they do, their ability to deliver culturally competent care is enhanced; if they do not, then a chance to improve the care experience for a large portion of Health Plan members is being lost, and the organization is missing an opportunity.

American medical practitioners have worked hard to equalize care delivery across the country so that patients at any hospital in the nation can be assured of receiving high-quality health care. We are now recognizing that cultural perceptions of “quality” differ and that we therefore must rethink certain practices. Most people intuitively understand that different cultural groups have different value systems and traditions. Health care providers should begin to familiarize themselves with these differences to improve treatment outcomes and patient satisfaction. For example, research has shown that Latino patients have a tendency to be forthcoming about the symptoms they experience and are very receptive to conventional treatments, whereas Chinese patients tend to be circumspect about their symptoms and may withhold information from the doctor if they are nervous or uncomfortable. (These patients also often prefer homeopathic remedies.) Being aware of this kind of information does not necessarily alter the way in which doctors perform their job, but the information does offer doctors a tool for evaluating whether a doctor-patient interaction in a particular situation might explain any inconsistency between the information the patient has volunteered and the findings of the examination.

Cultural competency also offers health care organizations a valuable opportunity to devote limited health care resources to the best possible use. As we look for innovative ways to guarantee that Health Plan members receive full value for their health care premiums, cultural competence will be an important way to give members a superior experience without added expense or capital investment. Cultural competency will thus produce a twofold benefit: outcomes will improve, and this improvement may encourage some members to seek more preventive care and thus reduce their reliance on costly emergency care.

Clinical research continues, but early results indicate that high-quality outcomes are directly affected by cultural competence. At a minimum, we recognize that basic diagnostic errors are possible if a language barrier exists between doctor and patient. On a more intuitive level, however, we acknowledge that the doctor-patient interaction cannot be as maximally successful if the patient feels uncomfortable because of the doctor's gender, age, tone of voice, physical gestures, or other behaviors that are meaningless in American culture but that have cultural significance for some groups.

Medical services are designed around shared cultural experiences that affect the interaction between patient and caregiver. The interaction will be more difficult if patient and caregiver come from different cultures. I have proposed that Permanente Medicine include a physician self-test to enable individual doctors to assess themselves and determine whether they need more training.
Incorrect diagnoses or treatment instructions that arise because of cultural barriers can turn misunderstandings into serious mistakes. Patients who have an unpleasant experience as a result of cultural insensitivity (even if the treatment is successful) will not look forward to returning to their doctor and will not speak well of Permanente physicians.

Diversity is also adding a new dimension to overall patient satisfaction rankings. In addition to price, convenience, and accessibility, minority groups will increasingly assess whether an organization is addressing, or attempting to address, their unique needs. Our responsibility is to make every effort to meet these needs as part of our mission to provide high-quality care to our Health Plan members.

Cultural competence will become increasingly important to purchasers as a way to help differentiate between highly competitive health plans. Organizations with a reputation for cultural expertise will naturally attract people who value that type of service for themselves or their family. Companies who employ culturally diverse workforces will value cultural competency because of its effectiveness in enabling employees to return to work more quickly after an illness.

Some commentators have suggested that cultural competency is merely a clever euphemism for segregated health care, in which patients of different races are induced to voluntarily separate themselves. This suggestion is very disturbing and could not be further from the truth. Patients coming to an environment specifically designed to put them at ease and offer care that is attuned to their needs have a better experience and better health. Instead of presenting a way to limit care, cultural competence provides a way to deliver maximum care.

Improved satisfaction from cultural competence extends to minority employees as well. Given a shortage of health care workers in particular—and a shortage of qualified employees in general—employers must do everything reasonable to recruit and retain the best staff from an increasingly competitive and diverse labor pool. Making a commitment to culturally competent care is one part of an effective strategy to communicate an organization’s respect for the diversity of its workforce and thus attract the most qualified staff.

Workforce Diversity within KP

Kaiser Permanente’s substantial progress in creating a diverse workforce over the past 20-30 years is often cited as an example of how successful such efforts can be at large organizations that show strong leadership and support for diversity:

- 42% of our nonphysician workforce are ethnic minorities;
- Women constitute 43% of our executive workforce

In general, diversity among the Permanente physician population equals or exceeds national levels:

- Of the ten Permanente Medical Groups, one is led by an Asian-American woman, and one by an African-American man.
- We have twice as many Asian physicians as the national average;
- 32% of our physicians are female—a percentage which exceeds the national average by 10%;
- We continue to add Latino and African-American physician partners as fast as we can despite the unfortunate fact that medical school enrollment is low for these two populations. (Since Proposition 209 passed in California, enrollment of Latino and African-American students in medical schools has dropped by almost half.)

In addition, we have opened three clinical care modules that focus almost exclusively on providing culturally competent care. The first module, located at our San Francisco Medical Center, focuses on serving the Chinese-American community; another module, located at our West Los Angeles Medical Offices, focuses on serving the African-American community; and another module, located in East Los Angeles, focuses on serving the Latino community. Successful practices from these pilot locations will be used as the foundation for future modules located at additional sites.

To design these centers to meet the needs of specific populations, every detail has been reviewed to ensure that the module conforms to the expectations of its surrounding community. Signage is posted in several languages, physicians and other staff members are bilingual where necessary, and everyone participates in sensitivity training so they understand cultural considerations in the doctor-patient relationship. They also receive special training to diagnose and treat illnesses that may be uniquely associated with the community.

An equally important element of culturally competent care is expertise in diagnosing and treating illnesses known to have a higher incidence in a given population. Different minority groups may have vary-
ing susceptibility to certain ailments or may have higher susceptibility to these ailments as a result of any change to a new environment in the United States. Health care practitioners who understand these differences can more quickly diagnose these conditions and can give patients better care. For example,

- The Latino population has a 100%-200% greater prevalence of diabetes than non-Hispanic white persons and therefore is at greater risk for renal failure, congestive heart failure, and blindness. Latinos also have the highest median cholesterol level (222.9 mg/dL; 5.76 mmol/L) than any other ethnic group in America;
- Not only do African-Americans have a higher prevalence of sickle cell anemia; in the United States, African-American men have a 300% higher mortality rate from prostate cancer than white men;
- Chinese-Americans have a high incidence of somatic illness related to stress; the physical symptoms are often brought on by emotional strain the patient is uncomfortable discussing.

As part of its internal education program, Kaiser Permanente has developed handbooks that show how to better understand individual populations and the role that culture plays in treatment outcome. Permanente physicians prepared the guides, which specifically discuss Latino, African-American, and Asian-American/Pacific Islander populations. An upcoming series of booklets will discuss Eastern Europeans, women, and sexual orientation in the context of promoting effective doctor-patient interactions.

In addition, Kaiser Permanente has for the past 21 years hosted a national diversity conference, at which leaders in medicine, education, and diversity training speak to those in medicine and government about the importance of diversity in health care.

We grant physicians continuing education credits for taking diversity training, and we encourage them to take advantage of the opportunity. Beginning in 1999, elements of the diversity training courses will be integrated into all ongoing training programs for physicians, nurses, technicians, and administrative staff.

Kaiser Permanente has also established the Culturally Competent Care Institute to coordinate our efforts nationally and to bring research, fundraising, and oversight of the centers of excellence under one entity. As a result of our ongoing efforts, Kaiser Permanente has emerged as a national leader among large health plans in developing sound cultural competency programs.

**National Diversity Council**

Our commitment to employee diversity began more than 30 years ago through the policy of affirmative action, which Kaiser Permanente aggressively supported. In 1988, recognizing that we needed a more formal approach to setting and reaching our goals, we established the KP National Diversity Council to spur change and to provide top-level leadership. The Council is a national policy-making group that develops initiatives and goals for the organization in cultural competency, workforce diversity, and member growth in diverse communities.

As Chairman of the National Diversity Council for the next two years, I intend to use the opportunity to raise the level of importance physicians place on cultural competency.

I addressed the California Medical Association at its annual conference in November, 1999 to present the issue of culturally competent care as a primary concern of all medical practitioners for the foreseeable future. A degree of urgency is involved in adopting this type of expertise, and I hope that our profession can move quickly to embrace its principles. We face inordinate pressures to provide affordable service; therefore, when opportunities are presented that can help us improve members’ care experience solely through increased training and attentiveness, we should be willing to commit ourselves to these important changes.

---

**References**

Notes From the Permanente Executive Conference—
Improving the Health Care Value Equation:
Access, the Care Experience and Resource Management

More than 125 Permanente physician-leaders, including virtually all the PMG Medical Directors and their executive staff, gathered in Scottsdale, Arizona, on November 2-3, 1999, for the interregional Permanente Executive Conference, sponsored by The Permanente Federation. Opening the conference, Federation Executive Director Jay Crosson, MD, warned that this year’s meeting, unlike the combination conference-social gatherings of years past, was designed to do work—and ten solid hours of intensive presentations, panel discussions, and table-based exercises, all on day one, proved his point. By the time the executive medical directors assembled on the conference room dais the following day to commit their respective regions to specific follow-up actions in the areas of access, the care experience, and resource management, a significant amount of work had been achieved.

What follows are notes on some of the highlights of an extremely content-rich conference.

The Context for Improving the Value Equation: An Insider’s View

Having dedicated the meeting to the late Paul Lairson, MD, who played the critical pre-Federation role in first bringing the Permanente Medical Groups together to do common work, Dr Crosson set the stage for the meeting through a review of market trends over the past year and an insider’s close-up examination of Kaiser Permanente’s current financial status.

The financial numbers, as of third quarter 1999 results, revealed significant accomplishments in reversing the historic financial losses KP suffered in 1997-98; but they also pointed to existing barriers to a robust, long-term recovery. Those include, especially, failure to bring down high hospitalization trends in some regions and Programwide, double-digit annual increases in pharmacy costs for the foreseeable future (see Figure 1), a result in large part of geometric annual increases in direct-to-consumer drug advertising, now approaching $2 billion a year. In a nutshell, the numbers suggest that if KP is to generate the large sums needed for medium-term investments in facilities and clinical information technology, the hill that remains to be climbed is still a steep one, and factors like improved hospital and pharmacy management will be critical accelerators.

Another reality evident in Dr Crosson’s financial snapshots: KP can no longer depend, as it long did, on a highly favorable rate position in the marketplace for needed membership and revenue growth. Given the necessity of steep rate increases in recent years, the KP price advantage that traditionally ran in the double digits in California and elsewhere is descending into the low single digits. This reality, he said, combined with Permanente Medicine’s commitment to quality, has, in effect, left the Program with little choice but to shift its value focus from the old emphasis on low price to today’s emphasis on superior quality and service (with competitive pricing) as the key differentiators. Since consumer research has concluded that in the public’s mind, clinical quality is a given—assumed by the public to be a characteristic of virtually all modern American health systems—the most powerful remaining value factor for members becomes the quality of member and patient service, which patients often equate with clinical quality.

As Dr Crosson concluded: “I said it last year (at the Federation’s interregional conference) and I’ll say it again: It’s really pretty simple from the members’ perspective. It amounts to this: ‘Answer the phone; meet my needs; and treat me with dignity and empathy.’”

Figure 1: Rising Health Care Costs: Drug spending increases outpace all other categories of health care spending.
The Gospel According to Terry Stein: Communication at Core of Care Experience

Terry Stein, MD, has been talking about physicians talking, and listening, for more than ten years as Director of Clinician-Patient Communication (CPC) at The Permanente Medical Group. She is passionate on the subject, and her data—is compelling. As Chair of the Interregional CPC Leadership Group, she has lately been broadcasting her key message far and wide across Kaiser Permanente: “The clinician-patient relationship is at the heart of the care experience”—meaning that patients want to be heard, listened to, cared about, understood, and involved in their own care decisions. When clinician-patient communication works, she says, the data show that patients are more satisfied, adherence to treatment plans increases, health outcomes improve, physicians are less likely to be sued, and physicians themselves are more satisfied.

Dr Stein delivered the conference’s keynote presentation—a sweeping review of the growing body of data on three interrelated questions: How does the clinician-patient relationship fit into the overall care experience; what do we know about the relationship between communications and health outcomes; and how have CPC education programs affected patient satisfaction. She concluded with a look at the opportunities for KP represented by improved CPC performance and an assessment of the effectiveness of existing CPC training programs, such as TPMG’s “Communication Skills Intensive” and “Thriving in a Busy Practice.”

Here’s a sampling of the data presented:

What do patients want?

• Northern California STAR data reveal that two factors—a patient’s perception of the familiarity of the care provider, and the perception of having chosen one’s own provider—account for about a 20 percent difference in overall patient satisfaction when all other factors are equal (see Figure 2). “There’s clearly a human need,” said Dr Stein, “to be known and seen as an individual and to have exercised one’s own autonomy in this very crucial human relationship.”

• Other important data from external sources include: A 1998 literature review on patient priorities in primary care1 concluded that “Humanness”—defined as “respect and personal interest in the patient as an individual”—outranked 27 other priorities, including such high-profile aspects of care as wait times, financial accessibility, and even improvement in one’s health.

• From a 1999 Patient Satisfaction and Outcomes Management study2 the top

![Figure 2]( Chung.png)  
**Figure 2.** The familiarity effect is replicated in many departments—with ratings up to 30% higher if patient sees his/her own provider vs. seeing an unfamiliar provider and up to a 20% difference between a familiar and an unfamiliar provider. (Adapted and reproduced from Gregory K. Regional report: The importance of patient familiarity with provider to care provider ratings. Northern California Region Member Patient Satisfaction Survey. Oakland, California: Kaiser Permanente Medical Care Program; 1998.)

![Figure 3]( Chung.png)  
**Figure 3.** Adherence scores derived from multivariate regression results. Model adjusts for patients’ sociodemographic characteristics and health status. Results reflect levels of adherence as comprehensive contextual knowledge scores are systematically varied, holding all other variables constant at their mean. Safran et al; 1998.
patient expectation is to receive information and have the doctor listen. A 1999 article from the HSM Group, on strategies for improving health plan retention, concluded that the patient-physician relationship usually is the most critical factor in member retention, regardless of the product or delivery model.

The link between CPC and health outcomes:

- A 1998 study, found that adherence rates were 2.6 times greater when physicians’ “whole person” knowledge of patients was strongest (see Figure 3).

The link between patient satisfaction measures and CPC:

- A 1996 study concluded (ironically, in light of public paranoia about managed care’s alleged limits on medical tests) that patient satisfaction correlates significantly with patient perceptions about the provider’s humanism but not with meeting patient expectations for tests.

The link between CPC and clinician satisfaction:

- A 1993 study found that the highest single source of career satisfaction for physicians was “enjoyment of relationships with patients.”

“‘The message,’ said Dr Stein, ‘is very clear: What patients want is humanness and the personal interest and attention of their provider.’”

The number of clinical calls has been a major hurdle in terms of patient satisfaction since the very inception of prepaid health plans, which significantly increased (by almost a third) the number of member primary care visits per year. The question is, “Can a supply-demand model help improve the situation?” Smoller’s model, based on analysis of years of appointment demand and availability data, shows that “demand is predictable.” The number of clinical calls and visits for a given number of members has held steady for years at about 4.33 visits per year per 10,000 KP members, nearly all for primary care. In addition, he noted, the demand is predictable in terms of three major types of visits: same-day, return, and physical examination, and the predictability for each can be expressed in terms of days, weeks, and months of the year. “In addition,” he

“‘What this all adds up to,’” said Dr Stein, “‘is that we have a tremendous opportunity at Kaiser Permanente—perhaps greater than any organization in the country—to offer our patients and members this kind of humane, personal, empathetic, collaborative care that they clearly want. The problem is that in our current state, we are a long way from delivering that kind of care experience.” The challenge, she concluded, is “not just a matter of correcting some deficiencies but of striving for a new level of excellence.”

Managing Access to Improve Patient Satisfaction

No one in Kaiser Permanente, and perhaps no one in America, knows more about the link between the care experience and access to care than Marv Smoller, MD, KP’s “godfather of access,” according to the Federation’s quality chief and conference coleader, Jed Weissberg, MD. Dr Smoller, a TPMG physician who has consulted throughout KP on access improvement initiatives, noted that access—the ability to schedule a timely appointment with the provider whom the member chose with a minimal phone wait—has been a major hurdle in terms of patient satisfaction since the very inception of prepaid health plans, which significantly increased (by almost a third) the number of member primary care visits per year. “The question is,” said Dr Smoller, “Can a supply-demand model help improve the situation?”

Smoller’s model, based on analysis of years of appointment demand and availability data, shows that “demand is predictable.” The number of clinical calls and visits for a given number of members has held steady for years at about 4.33 visits per year per 10,000 KP members, nearly all for primary care. In addition, he noted, the demand is predictable in terms of three major types of visits: same-day, return, and physical examination, and the predictability for each can be expressed in terms of days, weeks, and months of the year. “In addition,” he
noted, “providing good access and good service does not increase the demand. It is stable.”

To meet that demand, Smoller emphasizes the following supply-side requirements:

- Clinician scheduling: “Getting this right is critical, and it can be done” through good leadership, cultural change, and advance vacation planning.
- Simplify appointment types: Some programs categorize appointments by as many as 30 different types in trying to perfect a scheduling system, only to complicate things hopelessly. “Stick with the three basic types.”
- Develop an effective return appointment system to prevent the problem of “pre-books” creeping into the same-day allotment, and address clinician cancellations through strong leadership and a culture of personal responsibility.
- Reduce the number of after-hours care appointments by extending the clinic day to permit late afternoon or early evening appointments.
- Collect and provide accurate data for feedback to clinicians and care teams.

“I strongly believe,” said Dr. Smoller, “that good access and service is possible, but it requires two things in addition to all this: consistency—it has to happen every day, not just sometimes—and leadership.”

**Best Practice Models in Access, Care Experience**

Among the many successful practices presented by panelists exploring access and the care experience, attention focused repeatedly on a few outstanding models of workforce and member/patient satisfaction improvement programs. They included Hawaii’s “Path Forward” strategic cultural shift; Georgia’s primary care access model, the core of a broader patient satisfaction commitment; and SCPMG Orange County’s “Access Is Job One” primary care access model.

Although each model is distinctive in many ways, presenters noted that all three have been built up from scores of incremental steps, or building blocks, and the Georgia and Hawaii models have been evolving for many years. “The first learning,” noted Debra Carlton, MD, who discussed the Georgia model, “is that there is no magic bullet.” Also, all have shared other key success factors, including:
• A focus on members choosing and seeing their own primary care physicians,
• Leadership that is focused on and committed to member satisfaction,
• Accountability at all levels,
• Actionable measurement and feedback on patient satisfaction,
• Well-trained, empowered, and supported health care teams,
• And, in access improvement efforts, accurate appointment demand forecasting with daily monitoring and adjustment.

At the same time, significant differences exist among the successful models. Orange County, for instance, makes significant use of financial incentives for patient satisfaction at the health care team level, as does the Georgia model, while Hawaii avoids them entirely. Orange County achieves clinical staffing flexibility through the use of per diem physicians, which are not used elsewhere.

But most important, all the successful models have produced impressive results in terms of sustained improvement in their STAR Care Index measures, including such key measures as “ability to see regular physician,” “physician interest and attention,” and wait times for appointments (see Figures 4-6).

“These models show us that we can make great strides in making the care experience a key driver of value wherever we have strong leadership and a will to improve,” said Jill Steinbruegge, MD, the Federation’s Associate Executive Director of Physician Development and a key conference organizer. “They also show that, as Jay Crosson said, it really isn’t all that complicated. The real key is developing the leadership to make it happen.”

Detailed descriptions of the components and evolution of each model were presented both in written form and in panel discussions, which focused on the question of adaptability and transferability. (Permanentene physicians may obtain copies of written materials from The Permanente Federation’s Communications Department, 510-271-5983. Select materials will also be posted on a Web site being constructed by the Federation, accessible through the main KP Intranet, KPNet.)

Resource Management: Hospitals and Pharmacy

The final sessions of the conference shifted gears from access and patient satisfaction strategies to examine some ambitious initiatives in various regions aimed at improving quality and costs through innovative hospital and pharmacy utilization management programs.

Cal James, President of The Permanente Company, which has examined best practices in both areas, noted that the growing use of hospitalist programs in KP regions has generated enthusiasm in some quarters while failing to provide conclusive evidence of effectiveness in all situations. Although there is good evidence of added value (improved patient satisfaction, quality, and utilization) in the use of hospitalists at contracted, non-KP community hospitals, he said, the data on hospitalists in KP hospitals is mixed: Some programs have documented major gains while others have been disappointing or inconclusive. Despite the mixed experiences, James noted that a few common success elements stand out, especially the importance of physician buy-in to hospitalist programs and effective communication among PCPs, hospitalists, and patients—factors noted by virtually all the presenters.

The clearest success story is Colorado PMG’s 2-tiered triage admission program, championed by Assistant Medical Director Victor Collymore, MD. In place since 1995, this program depends on three different types of hospitalists to screen admissions: a triage physician who evaluates all admissions by telephone, rounding physicians who do on-site evaluations in the ER and rounds of 8-12 patients daily, and call physicians who clinically evaluate admissions as directed by the triage physician. This type of triaging has helped the Denver/Boulder area achieve the lowest Medicare days/1000 of all KP Regions, and the second lowest Commercial days/1000 (see Table 1).

Jeffrey Selevan, MD, Manager of Operations for SCPMG, described a more limited but equally successful program aimed at out-of-plan hospitalizations in more than 120 non-KP hospitals in Southern California. Called the Affiliated Intensivists Network (AIN), it contracts with two independent vendors that subcontract with large networks of physicians at non-plan hospitals, all of whom must meet SCPMG’s credentialing requirements. These affiliate intensivists evaluate all KP member admissions and can discharge KP members from non-plan emergency departments or transfer them to KP hospitals if they are stable. Preliminary results have been encouraging: Admit rates and lengths of stay have decreased significantly in non-plan hospitals, member satisfaction is high, and annual savings could approach $15 million if the study sample is representative of all cases managed at the AIN-covered hospitals.
Less encouraging results were reported from hospitalist studies in Northern California and San Diego. Stony Anderson, MD, SCPMG Chief of Internal Medicine, declared that “The hospitalist is not the goose that lays the golden egg,” after a study concluded that a hospitalist program in San Diego would cost $2.3 million a year (compared with traditional rounding) without showing any gains in quality measures or physician satisfaction and with only marginal improvements in nurse and patient satisfaction. In Northern California, Diane Craig, MD, Assistant PIC, noted that various hospitalist models have been used throughout the region without having significant impacts on regionwide patient days, readmission rates, or patient satisfaction. Anecdotal evidence, however, has been encouraging, especially in terms of increased efficiency in the continuum of inpatient care, increased clinic time and outpatient visits for PCPs, and valuable experience gained in the management of inpatient care.

Turning to pharmacy management programs, James reviewed the astronomic recent increases in overall drug costs and the impacts of direct-to-consumer drug advertising, up 43% during 1998, and encouraged physicians to “strap on the bayonets” for all-out battle against pharmaceutical advertising. Major weapons in the battle, said James, should include physician peer review with unblinded pharmacy utilization data, sharing of national data to identify reproducible best practices, and promoting proven counter-detailing strategies, such as increased pharmacy education programs. Panelists offered presentations on each of these strategies.

(Note: Audiotapes of Dr Stein’s presentation on the role of Clinician-Patient Communications in patient satisfaction are available from The Permanente Federation. Contact Samuel Yates, 510-271-5083, or e-mail samuel.yates@kp.org)

<table>
<thead>
<tr>
<th>Table 1. Colorado Region’s 2-Tiered Triage Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discharges/1000</td>
</tr>
<tr>
<td>Commercial</td>
</tr>
<tr>
<td>Medicare</td>
</tr>
<tr>
<td>Mean Length of Stay</td>
</tr>
<tr>
<td>Commercial</td>
</tr>
<tr>
<td>Medicare</td>
</tr>
<tr>
<td>Days/1000</td>
</tr>
<tr>
<td>Commercial</td>
</tr>
<tr>
<td>Medicare</td>
</tr>
</tbody>
</table>

Successful triage has resulted in the reduction of hospital days/1000. Denver/Boulder had the lowest Medicare days/1000 of all Kaiser Permanente Regions; 2nd lowest Commercial days/1000.

References
A Functionally Interactive Intranet Clinical Information and Tracking System for Managing Pediatric Populations with Chronic Diseases

The Pediatric Department at the Kaiser Permanente Medical Center in Fontana, California, has implemented an innovative tool to support the efforts of their population-based care management programs and of some subspecialty clinics.

In collaboration with the Learning Behavior Clinic and the Pediatric Asthma Clinic teams, project leaders have developed and deployed a functionally interactive intrafacility Web site through which clinical information and tracking systems are used as a tool to manage chronic diseases efficiently and effectively in large populations of patients.

This Intranet approach provides a common platform to solve unrelated problems. In addition, the lessons learned in serving one population are easily transferred to expedite successful management of another, unrelated group once the proper infrastructure is established.

Introduction of the electronic medical record is forthcoming, and a system for tracking specific patient populations will complement—not supplant—this technology.

Background

The Pediatric Clinical Information and Tracking System is a product of a joint effort by the Pediatric, Pharmacy, and Information Technology Departments of the Kaiser Permanente (KP) Medical Center in Fontana, California. The idea of creating a functionally interactive Web site was conceived to support the Pediatric Department’s population-based care management programs and selective subspecialty clinics.

Development of the Pediatric Clinical Information and Tracking System originated in September 1996, when the initial impetus arose to create a dedicated Intranet Web page to help manage a population of 2400 patients with Attention Deficit and Hyperactivity Disorder (ADHD) and related diagnoses. This idea was formulated by a multidisciplinary team of general pediatricians, a pharmacist, nurses, administrators, and clinical assistants who had been holding “brainstorming” sessions to analyze the problems that faced their department in managing patients with ADHD and related disorders. The team identified three major management problems: 1) lack of chart access for timely refill of medications; 2) need for a system to coordinate clinic visits, monitor appropriate prescriptions, and identify prescribing physicians; and 3) need for a readily accessible database for analyzing the effectiveness of the team’s management abilities. The team’s efforts resulted in creation of a computerized Triplicate Prescription Refill Tracking System (RTS) for patients with ADHD.

The RTS used recently installed computers in each physician’s office and an existing Intranet local area network. Five designated general pediatricians and one pediatric neurologist form the Learning and Behavior Clinic (LBC) team, which manages this population of patients. Only this team is allowed access to input information into the RTS; all others with computer access may only view the database of patient records. The RTS enables coordination of patient management as well as tracking of triplicate prescriptions without use of a chart. As a result, we were able to both hold prescribing physicians accountable for their actions and respond in a timely manner to requests for medication refills.

After the RTS was implemented, we concentrated on design and deployment of a pediatric asthma clinical information and tracking system based on our six years of experience managing a pediatric asthma

<table>
<thead>
<tr>
<th>Abbreviations:</th>
</tr>
</thead>
<tbody>
<tr>
<td>LBC: Learning and Behavior Clinic</td>
</tr>
<tr>
<td>PAC: Pediatric Asthma Team Clinic</td>
</tr>
<tr>
<td>GB: Gigabyte (1024 megabytes)</td>
</tr>
<tr>
<td>RAM: Random Access Memory</td>
</tr>
<tr>
<td>MHz: Megahertz</td>
</tr>
<tr>
<td>SQL: Structured Query Language</td>
</tr>
<tr>
<td>RTS: Refill Tracking System</td>
</tr>
<tr>
<td>IDC: Internet Database Connector</td>
</tr>
</tbody>
</table>

Ronald E. Williams, MD, Enrique Gaete, PharmD, MBA
John R. Moran, BSAM
Edward Curry, MD, FAAP

RO NALD E. WILL I A M S, MD (top left), has been an SCPMG physician since 1984. He is a Board-certified pediatrician with clinical interests in asthma management, learning and behavior disorders, and neonatology. He is also the medical coordinator of the Pediatric Asthma Team, and Co-Chairman of the Pediatrics TQM Team.

ENRI Q U E G A E T E, PharmD, MBA (top right), has been a pharmacist with Kaiser Permanente since 1990. He is a Clinical Pharmacist Coordinator of the Pediatric Asthma Team.

JOHN R. M OR A N, BSAM (bottom left), has been a Kaiser Permanente Information Technology Consultant since 1995. He establishes and manages Intranet development and physician computer training for KP Fontana.

EDWARD CURRY, MD, FAAP (bottom right), has been an SCPMG physician since 1984. He is a Board-certified pediatrician with clinical interests in asthma management, learning and behavior disorders, and neonatology.
The final product of these efforts was development of a proactive approach to asthma care within a tightly integrated clinical system. This approach used a system consisting of many different departments (e.g., pediatrics, nursing, emergency, respiratory therapy, allergy, family medicine, pharmacy), outlying clinics, pediatric hospital staff, social services, and home health services. To coordinate this diverse collection of participants, a computer-based clinical tool seemed a logical step to unify and enhance the flow of information. To meet this challenge, we used an established Intranet Web site accessible to all members of the PAC team.

The utility of this electronic platform has encouraged us to expand the PAC information and tracking system and to consider developing other clinical information and tracking systems for subspecialties, such as gastroenterology, rheumatology, diabetes care, and cardiology.

Objectives

The main objectives of the PAC team were to design and deploy a cost-effective Intranet platform which allows physicians to provide efficient, effective care to patients affected with chronic diseases. This platform would: 1) improve the quality and consistency of care delivered to a targeted population of patients; 2) enhance and improve physicians’ access to patient records; and 3) reduce costs by using a relatively inexpensive preexisting Web-based system. The Intranet site must be secure, selectively accessible, easy to maintain, able to function at a good to high level of performance, and reliable to preserve data integrity. Applications created for the site should also be easily transferable to other medical departments at their request.

Clinical Significance

We have been fortunate to experience the potential usefulness and cost-effectiveness of an Intranet management and tracking system. This approach to clinical information tracking systems development is “a winner” for Kaiser Permanente.

The Intranet Web site is designed to be a functional tool. Because most physicians are familiar with the Netscape® Navigator browser, Intranet applications can be delivered without changes to any workstation. Intranet applications can be rapidly developed and deployed. Moreover, the Intranet is an ideal platform for disseminating clinical guidelines, promoting standards and procedures, visualizing clinical images, and for generating feedback and case discussions between involved users. Security of confidential information can also be achieved.

Our pediatric asthma management program has enabled us to have a solid clinical infrastructure in which to successfully use an Intranet tracking system. Our original experience with the RTS showed that clinical issues vary among subspecialties. Nonetheless, an Intranet approach provides a common platform from which to attack unrelated problems. For example, to manage our asthmatic patient population, we focus on therapy and on integration of clinical services. For the LBC population, we work to make information more timely, to increase regular follow-up visits, and to make the medication refill system more efficient. The lessons learned in serving one population are easily transferred for managing other, unrelated groups successfully after the proper infrastructure is in place.

Design Process

The first step in creating the new information system was to develop a KP Fontana Pediatric Department Web site, which would incorporate all the clinical information and tracking systems developed by project leaders in collaboration with subspecialty teams. The second step was to include five useful features: 1) Internet links through which pediatricians are given immediate access to sites of interest; 2) a channel through which any clinician with access to the KP Intranet and e-mail system can consult a specialist about clinical issues; 3) the KP Fontana Pediatrics Department contact list, which contains direct phone extensions and fax numbers of all KP Departments of Pediatrics throughout Southern California’s Inland Empire; 4) the KP Regional Pediatric Subspecialty list, an easily searched directory of telephone numbers for all pediatric subspecialists in the KP Southern California Region; and 5) the Chief of Pediatrics Hotline section, from which the Chief of Pediatrics can release administrative information to the entire Pediatrics Department.

Another important feature of the Pediatric Department Web site is a program that facilitates administration of the site by allowing the site administrator to exchange messages with pediatricians, process
electronic referrals, troubleshoot problems of the system, and maintain records describing usage of the patient tracking system.

**Triplicate System for Tracking Prescription Refills**

After a specific patient population was identified for each Intranet tracking system, the patient demographic data were electronically transferred to the tracking system's database. Access to the system was restricted by a secured log-in designed to be used by participating physicians only (Figure 1). With the patient medical record number, the user could navigate through the system to view the specific demographic, clinical, and drug information for the patient and thus to refill prescriptions for monitored, controlled substances appropriately on the basis of the most recent patient contact.

The demographic and clinical information was input by the case manager, by a designated clinical assistant, and by participating physicians and included patient name, age, address, education, diagnosis, medical evaluation information and test results, name of designated LBC physician, last visit date, other comments, and latest date at which the patient's file was updated.

The patients' pharmacy data were also electronically transferred from our regional pharmacy information system, thus enabling the user to view the most recent date on which triplicate medication order was dispensed, medication name and dose, quantity dispensed, directions for use, and prescribing physician's name.

Another feature allows LBC specialists to add a new triplicate prescription by using a pull-down menu of medications. If the medication is not listed, physicians specify the prescribed medication by entering alphanumeric characters into a data field available for this purpose.

After the information for a newly prescribed medication has been entered, a printout of the triplicate prescription history is placed in the patient's chart. Posting this printout replaces the former handwritten list.

**The Pediatric Asthma Management and Tracking System**

This clinical system is completely integrated and is designed to support the medical staff who manage our moderate- to high-risk pediatric asthma patient population. Navigation of the site is similar to that of the RTS. The Intranet PAC team Web site is divided into three components: 1) Documents; 2) Referral Criteria and Methods; and 3) the Patient Tracking System.

The Documents section makes available the most common standardized forms for the team to view and to download as needed. Examples of such forms include two helpful communiqués: 1) the Did Not Keep Appointment letter, which is mailed to patients' homes after a missed appointment. This letter emphasizes the need for regular education with the designated specialists to control the child's asthma;
and 2) the Release From Asthma Team letter, which is sent to the referring physician after the patient, parent(s), or both have been educated and are maintaining good control of the asthma. Written contact through these letters assists continuity of care and facilitates these patients’ access to the program.

We have also included a useful hyperlink to the revised 1997 National Asthma Education Prevention Program guidelines; important links to sites related to asthma; and educational tools and guidelines for management of pediatric asthma in the physician’s office, in the Emergency Department, and at home.

The Referral Criteria and Methods (Figure 2) component allows KP physicians to send an asthma referral to the PAC team through the Intranet (Figure 3). This electronic referral system—the first of its kind—also lists criteria for referring patients to other contributing departments, such as Allergy, Home Health, and Social Services.

The third component, the Pediatric Asthma Patient Tracking System (Figure 4), was designed to facilitate physician contact with our patients at any point of service (eg, Urgent Care Department, Emergency Department, inpatient departments, or outlying clinics). The tracking system contains each patient’s home treatment plan (Figure 5), laboratory tests and clinical procedures done, demographic data, comments about environmental control, diagnosis (noting any seasonal predisposition), and patient visit history. Ready availability of this patient information streamlines management of the clinical workload for these busy departments. Instead of spending valuable time gathering information, our clinicians can have all important information at their fingertips.

Written, interactive age-specific asthma treatment plans are a vital part of the tracking system and are formatted in one of two ways according to whether the patient is younger than five years or is five or more years of age. Each treatment plan form is divided into three zones: green, yellow, and red. Input is facilitated by the use of pull-down menus. The final document can be printed out for use by the patient and family and for inclusion in the patient’s medical chart.

Web Site Technical and Security Specifications

The address for the Intranet site is http://font-csis.kpascal.org/Pediatrics/. The development team used Microsoft FrontPage® Web site development software and Microsoft Access® database software. JavaScript was used for all Web page script programming. Internet Database Connector (IDC) Structured Query Language (SQL) scripting was used for all database programming.

The server platform used for the Web site is a Windows NT 4.0 operating system running Microsoft IIS Web server software on a Compaq Deskpro 4000 computer equipped with a 133-MHz Pentium® processor.
The Web site containing the Pediatric Asthma Management and Tracking System is secured in a number of ways:

- **Logical security:** Entry to all sensitive areas of the Web site (e.g., the tracking system) requires a user name and a password. Security access is controlled by the Web site administrator, and only persons who are cleared to view patient information (i.e., cleared by Kaiser Permanente Security Access) may obtain a login.

- **Browser security:** Directories on the Web server that contain proprietary codes are set to disallow browsing, so no user can view these directories through the Intranet.

- **Physical security:** The Windows NT Web server is physically located in a secured building (the server farm). Access to the server farm is restricted to authorized Information Technology personnel, and two security checkpoints must be cleared before gaining access to the server area. A key code exists on the first door, and a card or key is required for access to the second door. Devices capable of notifying appropriate personnel if limits are exceeded monitor the room’s air conditioning and temperature.

- **Data security:** The Web site and associated databases are backed up nightly to a different tape. A long-term archive is created at the end of the week and is saved for a month. The process is then repeated.

- **Databases:** All databases containing proprietary data are password-protected and are stored on the secured server.

**Discussion**

This Intranet Web site patient management system was created by clinicians as a tool to enhance their productivity and interdepartment communication. The impact of this Web site on physician access to patient records, the Web site’s ease of use, and its utility as a platform for enhanced communication is constantly assessed by physician and other team member feedback and input. The Web site was the brainchild of clinicians who had initially developed a support system capable of handling a large population of patients, and we believe that this aspect of the site is crucial for the success of any electronic patient management system. A system for tracking specific patient populations will complement, not supplant, future introduction of the electronic medical record.

Desktop computers have given the vast majority of physicians access to this new technology, even if they have little or no computer experience. We have observed clinicians develop confidence navigating the Web site, make constructive contributions to improve the database utility, access Internet hyperlinks for information, and become more enthusiastic and receptive to future computerized applications. The Web site has thus been a highly effective way to support transition from a paper-based to an electronic clinical practice.

The success of this Intranet Web site has been shown by the high number of site visits, the e-mailed compliments by visitors to the site, and the satisfaction expressed by the team members who manage the...
targeted patient populations. We have received many inquiries on how to transfer this application to other subspecialty populations. We are currently creating a business process to expand the scope of the Web site to fulfill the demand for implementation in other geographic locations.

The success of this highly functional system has led us to envision a strong national demand for this electronic platform, whose utility includes 1) minimal costs, because KP physicians and their team members can use existing hardware and software; 2) broad appeal, because the applications can be customized easily for specific local needs; and 3) less duplication of effort, especially with increased clinician awareness of this type of Intranet application.

Acknowledgments: The authors of this article would like to acknowledge the support and valuable contribution of the following doctors of the Learning and Behavior Clinic and Pediatric Asthma Clinic teams at KP-Fontana: Ernesto Carlos, MD; Marcia Hyvarinen, MD; Hla Hla Kyi, MD; David Lah, MD; Belen Leong, MD; Allison Nguyen, MD; Julie Mann, MD; Shoaib Patali, MD; Winston Rajasingham, MD; Robert Reyna, MD; Bertica Rubio, MD; Jae Shim, MD; Jay Tibbles, MD; and Alson Wong, MD.

References

(Disease management)

(Background Intranet and Internet information)

(Designing an Intranet system)
5. Siwicki B. Systems integration: how will new standards help health care organizations tackle the challenge of easing the flow of data?. Health Data Manag 1998 Feb;6(2):74-6,78,80, passim.

Big Focus on Small

“Many of the most successful service enterprises in the world attained market dominance by an extraordinarily ‘big’ focus on the ‘small’ functional frontline units.”

James Brian Quinn,
Intelligent Enterprise
Patients’ Bill of Rights? Or Wrongs?

At the end of its first session, the 106th Congress has produced a list of shortcomings far outdistancing the list of accomplishments. Where, oh, where are the hoped-for legislative solutions to issues such as gun control, campaign finance reform, social security stabilization, Medicare reform including prescription drugs, minimum wage, medical records privacy, and consumer protection, among others?

The Patients’ Bill of Rights Act of 1999 debate has held center stage for the past two years but remains contentious and unresolved despite action by both houses of Congress and despite a strong desire by President Clinton to sign legislation. A conservative Republican version passed by the Senate last July and a more liberal version passed by the House in October must be reconciled by a conference committee, members of which have been appointed by the leadership of the two parties in the two legislative chambers.

As the majority party strongly opposed to the House version, the Republicans control the votes in this committee and also control the committee’s schedule. It is now a certainty that this committee will not convene until next spring, although no dates have been set. Some Republican leaders prefer a strategy of stalling to rapid resolution of the differences between the two versions. Others fear the political consequences of stalling. What are the tradeoffs of this strategy?

The majority rules. And in the conference committee, all Republican appointees (except Rep. Michael Bilirakis of Florida) are opposed to the House version. They object to federal regulation of private insurance and decry the new cause of action against health plans—especially if brought against employers who sponsor self-insured plans. With the majority votes in hand, the Republicans could forestall any bipartisan compromise that meets the President’s expectation for a bill containing a health plan liability provision.

Unfortunately, this strategy may run into the buzz saw of national elections, now just a few months away. If the American electorate’s views of managed care are accurately reflected in the most recent surveys, politicians who stand in the way of meaningful consumer protection legislation may find their reelection odds lengthened. And the Republican Party may lose the narrow majority it currently enjoys in both houses of Congress. Only five votes separate the two parties in the House, whose Republican majority has eroded after the past two elections. Much more may be at stake than just regulation of managed care. The battle over the Patients’ Bill of Rights may be won in the short term, but this victory could cost the war for votes and the majority in Congress at the polls in November. If the Democrats regain control of Congress, harsher legislation is likely in the first year of the 107th Congress.

Some in the managed care industry are contemplating an alternative strategy. What if we pushed hard for both an early meeting of the conference committee and rapid resolution of differences—including a modified liability provision acceptable to the President? The outcome we get now might be much better than what we could expect later, especially under a Democrat-controlled Congress. Pushing for a compromise might give the health care industry some clout in directing the nature of the compromise. We could “soften the blow” by arguing for a liability provision that would require exhaustion of appeals before bringing a lawsuit; provide admissibility of evidence from appeals panels in any subsequent lawsuit; prohibit punitive damage awards against defendants who have followed the recommendations of an appellate panel; disallow class action lawsuits and vicarious liability; and keep federal jurisdiction over ERISA lawsuits. This strategy holds some promise, but it may entail loss of trust with employers and Republican leaders who have steadfastly opposed any liability provision.

The Final Question: Does it Really Matter?

As is true with so many complicated legislative issues that drag out over several years, the pace of change in the marketplace and with technology outstrips the deliberate process of creating laws. For example, class action lawsuits already brought against the health care industry would not be outlawed by new legislation. Moreover, many courts have lowered the threshold for bringing lawsuits against health plans. Most health plans now or soon will voluntarily exercise external, independent third-party appeals in disputes over medical necessity determination or experimental care. Some for-profit health plans have seen wisdom in the practice (long pursued by Kaiser Permanente and other not-for-profit health plans) of entrusting to physicians the

DONALD W. PARSONS, MD, is the Permanente Federation’s Associate Executive Director for Health Policy Development. E-mail: don.parsons@kp.org
responsibility of making medical decisions. This action alone may restore trust in a medical care system in disrepute among the American people. Most health plans have adopted mandates (found in both versions of the Patients' Bill of Rights) such as for access to specialists, to emergency care, to continuity of care, and to information.

In the final analysis, decisions made in Congress about the endgame of this legislation are likely to be determined not by the virtues of the substance of bills but by the political calculus of upcoming Congressional and Presidential elections. Will the right decisions be made for the wrong reasons? Will decisions be made at all by a Congress seemingly paralyzed by narrow vote margins? Whatever the outcome of the legislative process, the private marketplace is changing rapidly, and a new law might be outdated before it takes effect. Having taken the lead on so many of these tough issues, Kaiser Permanente will be well prepared to deal with any outcome.

It's Value, Stupid

“For a variety of reasons, we have focused on the wrong question about education in the clinical setting: we have been asking about ‘Costs’ when we should be asking about ‘Value.’”

Linda A. Headrick, MD and Mark E. Splaine, MD,
Institute for Healthcare Improvement 1999
National Forum on Quality Improvement in Health Care
Mission: Cataract USA

A truck driver who had been out of work for months is back on the road. A retired man resumes his favorite hobby, building model railroads. And an unemployed carpenter returns to his job.

These three patients are among the recipients of free cataract surgery provided by a dedicated group of Kaiser Permanente (KP) physicians, nurses, and other clinical staff in Sacramento, California. Since 1996, the staff have provided cataract surgery to people who do not have health insurance and thus cannot pay for the procedure (which has a market value of $5000).

“Our volunteers have really committed to this. It makes us feel good to be involved in something that is helping to change lives,” said Clint McClanahan, MD, of the Ophthalmology Department at KP-Sacramento.

Dr McClanahan serves as coordinator of the program, known as Mission Cataract USA. The Sacramento event is part of a nationwide program begun in 1991 by a Fresno ophthalmologist who, in 1991, began providing free surgery to those in need. Dr McClanahan learned of Mission Cataract USA in 1995, when he read a medical journal article about the program. The idea immediately caught his interest because he has a long-standing interest in helping the underserved. For the past six years, he has made annual trips to Mexico to provide eye examinations and eyeglasses to needy people as part of a charity effort arranged by his church.

“I thought it would be a great opportunity for us to provide a community service. There are so many people who fall through the safety net,” said Dr McClanahan, whose father is a retired KP ophthalmologist and whose grandfather also practiced the specialty.

Since 1996, 50 free cataract operations have been provided by the volunteer team at a dedicated eye surgery center in the KP Medical Offices in Rancho Cordova, a suburb of Sacramento. More than 50 ophthalmologists, optometrists, nurse anesthetists, ophthalmic technicians, operating room technicians, receptionists, and surgery scheduling coordinators have volunteered their time. In addition to providing the medical staff, KP provides supplies, medications, and operating rooms. Intraocular lenses and other materials are donated by vendors.

Before the surgery day, an awareness campaign is conducted to notify the community of the free service. Public service announcements on the radio, newspaper articles, and printed fliers help attract candidates. Screenings are held to determine patients’ financial and medical eligibility for the free surgery.

“I wondered when we started if there would be anybody who needed this service. It turns out there has been no problem finding people,” said Dr McClanahan, who coordinates the program jointly with Steve Metzger, Eye Services Manager, and Jackie Ansley, RN.

In recognition of their efforts, the medical staff recently was presented a 1999 People Helping People Business Award from the Community Services Planning Council in Sacramento. The Council is a nonprofit organization that works to build coalitions for solving community problems such as hunger, homelessness, violence, substance abuse, and inadequate access to health care.

The award was given for Exceptional Community Support. In accepting the honor on behalf of the medical team, Dr McClanahan said, “The support of physicians and staff, Kaiser Foundation Health Plan, Kaiser Foundation Hospitals, and The Permanente Medical Group all contributed to the success of this program. It’s very gratifying to work with such a dedicated group to restore the precious gift of sight.”

Said Ed Glavis, Senior Vice President and Area Manager of the Valley Service Area, Sacramento, Kaiser Foundation Health Plan and Kaiser Foundation Hospitals: “This program exemplifies Kaiser Permanente’s commitment to community health. The volunteers who gave so much of their time to make this effort possible should be applauded.”

The medical team has received many letters of thanks from patients who benefited from the free surgery. One patient wrote, “Everything before [the surgery] was a cotton-ball blur. You gave me back the sight of the hairs in my bunny’s fur. You gave me back the bark on the trees.”

Another patient, who was able to return to work as a security guard after the surgery, wrote: “I can’t thank the doctor and staff enough. This operation truly gave me back my life.”

Said Dr McClanahan: “Some people say this is just a drop in the bucket. Well, a drop is better than nothing.”
Joe's Place
By Michael Stine, MS, LPC

(written for my brother who wanted "something less depressing - with flowers and children laughing")

Ah, let's dance a drunken Polka to the song of the great Return! Sing — like the baby breathes, like the sea rises!

Earth circles around again,
Spring carries us forward past
Another February. Love opens
Into the child's confidence, laughing
Like they always will. Always will the
Sun invite with familiar touch, kindling
Sparks of summer coming… long seconds diving
Into the water's surprise, long minutes breathing
Deeper in play, long hours of feeling sweet
Comfort outside the usual four walls, longest
Days of the year reminding us that
Life is to make joy. ❖

The poet (left) with his brother, Joe.
"Clarity" by Brad Becker, MD

The picture of the bird was taken locally. The trees in the background are in a park in Brad’s neighborhood. Brad states, “This image has no specific meaning, but I like the idea of opposites. Normally animals are in motion whereas trees and landscapes are stationary. Here I’ve created a sense of motion in the trees with a stationary bird.” More of Brad’s work can be seen on the cover, as well as pages 16 and 80.
“Protecting The Gift: Keeping Children and Teenagers Safe (and Parents Sane)” by Gavin De Becker

Review by Robin Kittrelle, RNP

Could a book about how people harm children be a page-turner? It is hard to imagine, but that is what this book is. Gavin De Becker writes so clearly and with such refreshing insight about everyday risks (explaining exactly how children are at risk) that his book should be required reading for everyone—doctors, nurses, teachers, or parents—who interacts with children. Our patients and their children depend on us to share this information with them. Whether you read this book in a day or read it over the next few months, I implore you to get a copy; and when you are finished, loan it to someone else.

Gavin De Becker is a leading expert in predicting violence. His clients include the US Central Intelligence Agency (CIA) and the US Supreme Court. Protecting the Gift: Keeping Children and Teenagers Safe (and Parents Sane) is a follow-up to his extraordinary 1997 bestseller, The Gift of Fear: Survival Signs That Protect Us From Violence. Protecting the Gift is about protecting the children who live in your city or town. It is thus about today’s world as well as its future.

Although parents, teachers, doctors, and nurses are usually willing to look at safety issues, all are usually uncomfortably quiet or look away when the subject of sexual impropriety involving children is brought up. We often hear, “Not in that family” and, most commonly, “Not in my family” or “Not in my practice.”

Protecting The Gift tells stories that deserve to be heard. Infrequently, we read lurid cases in the newspaper, but far more commonly we see the unrecognized sequela of these cases in our offices. The author writes about these sequela in a clear and straightforward manner and seems unconcerned with “political correctness.” In fact, the author blames the widespread value placed on “being nice” as one causative factor in becoming first a target of violence and then its prey. For instance, De Becker notes that while we teach our children not to talk to strangers, those same children watch us talk to a multitude of strangers every day. A better plan, he suggests, is to supervise children as they talk to strangers and then discuss the encounter afterward so that they may learn to exercise their own intuition and learn how to make safe choices about the people they encounter.

De Becker wants readers to acknowledge that human-to-human violence and sexual abuse are, indeed, human behaviors: Adult humans do engage in sexual activity with children. Yes, the author says, this behavior is repulsive, destructive, and inhumane, but it is human. This is the first point to understand in protecting yourself and others in your care. If we refuse to see violence and sexual contact with children as human—and therefore possible—we can neither predict nor prevent it. (If you argue that you could never become violent, ask yourself what your response would be if someone tried to harm your child.)

The author makes the point that childhood is not inherently safe; it is safe only when adults make it so. To that end, our intuition about people can be a wonderful guardian. We can all think of a time when we listened to our intuition (ie, listened to our unconscious selves) and were grateful—and a time when, to our regret, we ignored our intuition. To protect our children, we first must learn how to protect ourselves from “things we’d rather not have to think about” and then teach our children to protect themselves similarly. De Becker writes that denial is “like waking up in your house with a room full of smoke, opening the window to let the smoke out, and then going back to bed.”

The author has developed “The Test of Twelve,” a list of what children would ideally know before ever being alone in public. For example, item five in the list instructs children how to choose whom to ask for help (“ask a woman, not a male security guard”); and item 11 teaches children that if someone says “Don’t yell,” the thing to do is yell. De Becker also talks about our “logic brain” and our “wild brain.” The logic brain is revered by society but is slow to react and weighs past and present rules about how things should be before reacting. In contrast, the wild brain answers to no one and has no reluctance to immediately do “whatever it takes.”

De Becker makes a convincing case that violence almost always has detectable prior indicators that our wild brain recognizes and alerts us about through doubt, suspicion, apprehension, hesitation, and that urgent and most valuable indicator, fear. The author says that the wild brain is our best resource in this regard—it may not be the loudest voice, but it is the wisest.

Society has trained us that, for any given problem, some professional knows best; just keep searching and someone will tell us what to do. Because we have been taught to trust others over ourselves, we may decide to ignore our discomfort when the school principal tells...
us that an overly friendly teacher’s aide is a “nice man” or that several other neighborhood parents use a particular baby-sitter who seems somehow odd to us. Hesitation may be all you have to go on, but the expert voice that matters most is your own. Acting on intuition might be inconvenient, unpopular, or even rude—but as victims of violence would say, those are small matters compared with what they have experienced.

So, learn how to listen to your wild brain. Read this book and I think you will find that instead of being horrified by what you learn, you will be surprised by what you didn’t know; and that instead of being frightened, you will be empowered. You also may be better able to help patients by sensing more accurately what is going on in their lives.


Robin Kitrelle, RNP
Nurse Practitioner Kitrelle has been with the Department of Preventive Medicine in San Diego for many years. Prior to that, she was crew chief for a forest firefighting team while in nursing school. She is the mother of two children and is married to a physician.

Death of the Good Doctor: Lessons from the Heart of the AIDS Epidemic by Kate Scannell, MD

Review by Keegan A. Checkett

Poetry in life is a common metaphor, although few realize its truth. William Carlos Williams posthumously achieved international fame in medical and literary circles for his ability to catch, as snatches of verse, the truly important moments in people’s lives that lose their essence in the emergency or banality of the time. Shakespeare, Frost, George Eliot, Fitzgerald, and many other prestigious authors famed for their ability to portray truth in life occasionally wrote a character, passage, or poem that addressed some aspect of medicine. None of them truly captured this medical aspect or devoted themselves to it until Williams.

Now Kate Scannell, MD, has published a collection of short semibiographic sketches depicting the trials and tribulations of life and of practicing medicine. Each chapter begins with a quote, set off so that it is not so much a theme but an invocation to the author of the quote, a Muse who gained understanding.

As Scannell explains in the prologue, the good doctor in her was the highly trained, efficient product of intensive medical training in school, residency, and research. She could nail afflictions and single-handedly defeat problems with her arsenal of skills and drugs. Her fundamental flaw, however, was her inability to see the heart of a situation, the real problems that her terminal patients were facing in the dark ages of AIDS, the mid-1980s. As she relates the story in the prologue: early in her career on the AIDS ward, she misinterpreted a patient’s request for help as a request to sustain his life. Learning the next day that he simply had wanted to die pain-free, without life support, the ‘good doctor’ in her died and was replaced by the tough, eccentric, sharp-sighted caregiver who spent the next five years easing patients’ physical and emotional pain. Nearly a decade later and after exponential advancement in the AIDS field, Scannell addresses these patients and their characters while recovering from her battle with ovarian cancer. Compiling these stories, Scannell finds her own.

Death of the Good Doctor is a carefully packaged collection of character sketches, featuring Scannell, her patients, and their families as the leading characters. Scannell’s ability to re-create these patients and their struggles lends the book its vibrancy and credibility. The text reads easily and quickly because she captures the moment, intimately detailing the traits that define a person. She may devote extraordinary effort to describing a patient’s worry over proper death
etiquette without a word about his background. The etiquette concern is the crux of this particular patient’s proper treatment, not his dementia.

Fortunately, Scannell’s story is not that of a female Patch Adams-meets-AIDS unit. Nor can she compare to William Carlos Williams. What she does do is recall the better attributes of both by creating a book that although not the work of a literary genius, is accessible to readers of all levels, with or without medical or literary experience. Scannell refrains from drawing all of the conclusions in her stories or making any sweeping statements. By presenting the heart of a story and outlining her insights, she leaves it open for the reader to interpret the driving force behind each patient and behind herself. The resulting text is laden with rich character description, Scannell’s sharp wit, and heart-tugging anecdotes in a context that intellectually stimulates the reader.

Rewritten, Death of the Good Doctor has enormous potential as a screenplay, because the material is familiar to every human being and easily accessible to every reader. The amount of intelligent thought devoted to the text depends solely upon the reader. Taken at face value, Scannell’s work is a dynamic, engaging, and unique creation that, at the least, will affect the reader on a subliminal level. On dedicated reading, the insight and self-knowledge gained undoubtedly will nourish the discernment, creativity, and shrewdness required for skillful patient interaction.


Reference

Keegan A. Checkett
Keegan Checkett is a premedical student at Dartmouth College, majoring in English and Drama. She is a National Merit Scholar and recently spent an internship at SCPMG’s Department of Preventive Medicine in San Diego, where she produced an educational videotape to distribute to patients with hemochromatosis.

Kate Scannell, MD
Kate Scannell, MD is an internist who practices with The Permanente Medical Group in the San Francisco Bay region.

Primer of Epidemiology, 4th Ed.
by Gary D. Friedman, MD
Review by Robert F. Anda, MD, MS

The stated purpose of this book is to provide health professionals with a concise overview of the concepts of epidemiology and to “bridge the gap” in communication between epidemiologists and clinicians. That this is a fourth edition indicates ongoing success. Dr Friedman uses examples of studies and problems that apply the principles put forth in each chapter.

As the author aptly states, “Epidemiology is not a rapidly changing discipline.” However, a basic grasp of the appropriate use and interpretation of epidemiologic studies is becoming increasingly important as advances in computing and information technology make health-related information easier to collect and analyze and thus more widely available. This latest edition of his book provides rich examples of epidemiologic studies that not only teach and engage the reader but also provide an appreciation for the history, successes, and pitfalls of epidemiologic studies.

The first nine chapters cover basic measurements in epidemiology, methods, and types of study design. The information in these chapters is more than sufficient to give the novice insight into terminology, concepts, and the strengths and weaknesses of various types of studies. In Chapter 4, Friedman refers to the often-heard criticism, “Of course, this study was retrospective, so we cannot be confident of the findings.” It would have been useful to help debunk this myth by walking the reader through the ways to evaluate the quality of such studies. More specifically, readers should be encouraged to look at issues such as bias and determining whether the misclassification that may result from retrospective studies is differential or nondifferential. In many cases, the limitations of such studies result in conservative estimates of the effects of an exposure under study (because of nondifferential misclassification as described on page 50).

The treatment of statistical associations is adequate but could be improved by emphasizing that there is nothing magic about “p<.05” and that evidence of a strong association in the absence of this p value should not be dismissed! In view of this common flaw in the interpretation of data, a concise summary about the balance between statistical power, precision and strength of associations, and the probability of falsely rejecting the null hypothesis could improve the reader’s ability to interpret the meaning of statistical analyses.
The introduction to multivariate analysis is well done. The various types and uses of multivariate techniques will probably be understandable to most health professionals who read it, which, in itself, deserves praise.

Chapter 9, entitled “How to Carry Out a Study” is simply wonderful! If every researcher were to follow these practical and systematic guidelines, the quality of both medical and epidemiologic research would take a major leap forward. This chapter is a golden nugget that should be read and reread until ingrained in the mind of anyone embarking on a research project.

The book ends on two additional high notes. Chapter 15 makes the case for interdependence of the practices of medicine and epidemiology. The final chapter is a superb review of the most important aspects of each chapter.


Robert F. Anda, MD, MS
Dr. Anda is Co-Principal Investigator of the Adverse Childhood Experiences Study, which is being carried out by Kaiser Permanente and the Centers for Disease Control and Prevention (CDC).

Gary D. Friedman, MD
Dr. Friedman is a noted physician-epidemiologist who recently returned from The Permanente Medical Group after 30 years with its Division of Research in Oakland, where he still conducts epidemiologic research as a consultant. He is currently Consulting Professor, Division of Epidemiology, Department of Health Research and Policy, Stanford University School of Medicine.

Advising is an Art

“Giving advice is an art. Some people do it well. Others, often equally knowledgeable, do it poorly. The difference between the two is that the poor advisor is not skilled or trained in the art of advice. Like any art, giving advice is governed by certain basic principles—principles which apply to all professions. The ability of a lawyer, engineer, minister, or physician to help another person with a problem will in many cases depend as much on a mastery of the art of advice as on a substantive knowledge of law, engineering, theology, or medicine.”

Jeswald W. Salacuse, Dean, Fletcher School of Law and Diplomacy, Tufts University, The Art of Advice
Finding the place to begin talking about being a doctor and being gay is not an easy thing for me. I am both. And it is this “same-sex marriage” that defines both who I am and the kind of doctor I have become.

I knew I wanted to be a doctor since I was five years old. For one thing, the patriarch of my family (my uncle) was a physician. And then there was my grandmother who, just before she died, gave me my first medical kit as a birthday present. As I recall, I skipped the toy stethoscope that was included in the kit around my neck and asked a relative to cough.

It was the cough that launched a career.

Thirteen years later, Boston University accepted me into their six-year medical program. Then I returned to the town I had grown up in, Chicago, to do an internal medicine residency at Michael Reese Hospital. It was an ordeal all right—the long hours, the challenging patients, the academic rigors of residency. But compared to coming to terms with my homosexuality, the whole process of going through medical school and internship was a piece of cake.

It was about two years after that momentous fifth birthday that I just spoke about that in some vague, undeniable way, I got my first inkling that I was different. Of course, I didn’t have a word for it, and even when I did, I didn’t do anything about it until near the end of medical school. And I stayed in “the closet” a few more years after that. The AIDS epidemic (or gay-related immunodeficiency as it was known back then) I’m sure had something to do with this prolonged reticence. For it gave those who were already homophobic a powerful new focus. And while certainly AIDS patients did receive compassionate care from the medical mainstream during those years, an undercurrent of prejudice did nevertheless surface—especially among my older colleagues. So, at least from a professional standpoint, staying in the closet seemed like a smart idea.

However, around the time that I entered private practice, there were a couple of things that happened that changed my attitude. First, my gay and lesbian friends began using me as their doctor, and, by word-of-mouth, I soon drew others. My willingness to be out, and their ability to come out, meant that they were finally getting the care and attention that they so desperately yearned for but didn’t think they had gotten. And I, in turn, became increasingly attuned to their unique health needs and concerns. (I should add that as my practice within the community became better known, I drew more straight patients as well.)

Secondly, and more sadly, as the AIDS epidemic worsened, a growing number of the patients I treated were being diagnosed with HIV. As traditional therapies failed, I aggressively sought alternatives. I enrolled them in stage three trials for ddI, ddC, d4t, and all the other drugs that would follow. And the more active I became, the more calls I received from pharmaceutical reps who, obviously enough, were just as eager as I was to see their latest AIDS drugs tested out.

And so I was drawn farther and farther out of the closet. So far out, in fact, that by 1994, I became a member of the board of the Gay and Lesbian Medical Association (GLMA) and in that capacity began to shamelessly “out” myself to anyone I thought might be a potential GLMA member. Also that same year, I became president of Gay and Lesbian Physicians of Chicago.

Coming out was an extremely liberating experience for me. There was no hiding anymore; I was true to the world, and it was true to me. And it paid off in any number of ways. For one thing, because I was a gay doctor with a large gay and lesbian patient population, Northwestern Community Medical Group (affiliated with Northwestern Memorial Hospital) invited me to merge my practice with theirs. And because I had a high patient satisfaction rating, managed care companies came courting as well.

I moved to the Bay Area in 1997 and now practice internal and HIV Medicine for Kaiser Permanente in Santa Clara. Here, I’ve been completely accepted and respected by my colleagues. And that has been very gratifying, indeed.

However, if there’s one moral to be gleaned from my story, it’s this: medicine is not a popularity contest, it is a dialogue in mutual respect and dignity. And, in this regard, gay and lesbian doctors have much to offer.

Medicine and gay rights are both my life’s work. And if we ever meet, don’t be afraid to ask me about either. I’m out about both 24 hours a day, seven days a week. Too bad I’m not paid an hourly wage.
Announcements

POSITION AVAILABLE: Associate Medical Director of Clinical Affairs, Atlanta, Georgia
The Southeast Permanente Medical Group, Inc (TSPMG) in Atlanta, Georgia currently seeks an experienced senior level manager for our position of Associate Medical Director of Clinical Affairs.
Successful candidates must possess:
• Senior level management experience with a proven track record in managing various clinical and administrative functions
• Highly effective leadership skills with proven ability to participate as a contributing member of the senior level executive management team
• Demonstrate effective management and support of operational leaders, including 3-4 physician and 2-3 non-physician direct reports, totaling a department of 100+ individuals
• Direct management experience, overseeing all functions: (1) Quality Improvement Department, (2) Quality and Resource Department, (3) Research Department, (4) Prevention and Health Promotion Department, reporting directly to the Medical Director
• Ability to effectively oversee the risk management and risk prevention activities ensuring that all departments meet accreditation standards, including three year NCQA accreditation.
• Board Certification required, with a Masters in Public Health or Business preferred.
For consideration by the Medical Director, please contact Linda McIntyre in TSPMG Recruitment, Atlanta, Georgia, by e-mail, or call Linda at 404/364-7178, pager 770/890-6279. Please forward an updated curriculum vitae if available.

POSITION AVAILABLE: Director, Care Management Institute, Oakland, California
The Permanente Federation is looking for interested candidates who meet the following qualifications:
• MD degree with advanced degree or equivalent experience in management. Proven track record of successful leadership in care management and/or health care operations. Demonstrated ability to lead and manage through influence and collaboration. Exceptional strategic thinking, business planning, and project management skills. Visionary, progressive person who respects and honors the history, accomplishments, and potential of Kaiser Permanente, Permanente Medicine, and The Permanente Federation and its shareholders.
For more information or to submit a resume, please contact: Jed Weissberg at 510/271-6432.

The Permanente Journal is seeking reviewers to expand its peer review capability. If you are a physician who does not currently partner with a Permanente Medical Group and are interested in serving as a reviewer for The Permanente Journal, please contact Ms. Max McMillen at 503/813-4387 for a reviewer application form.

Check out The Permanente Journal on the Internet. Full-text versions of past and present articles, all within a searchable database.
http://www.kp.org/permanentejournal

The Fourth Interregional Symposium for NPs, PAs, CNMs, and CRNAs will be held August 3-5, 2000 at the Hyatt Newporter in Newport Beach, California. For information, call Wendy Friedman, tie-line: 8-338-3075, or 626/564-3018.
The Kaiser Permanente National Primary Care Conference

April 23 - 28, 2000
Kauai Marriott Resort
Kalapaki Beach, Kauai, HI

Are you looking for quality continuing medical education combined with opportunities for personal and family recreation, fellowship and renewal?

This program has been accredited for 24 Category 1 CME credit hours. It features the following:

<table>
<thead>
<tr>
<th>Session A</th>
<th>Session B</th>
<th>Session C</th>
<th>Session D</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Practical Primary Care Skills</strong></td>
<td><strong>Women's Health</strong></td>
<td><strong>Communication, Service &amp; Behavioral Skills</strong></td>
<td><strong>Musculoskeletal Medicine Skills</strong></td>
</tr>
<tr>
<td></td>
<td>Disease Management, Permanente Medicine &amp; the Care Management Institute</td>
<td>What Women Want in Health Care</td>
<td>Diagnosis &amp; Management of Common Pediatric Orthopedic Problems</td>
</tr>
<tr>
<td></td>
<td>Current Concepts in the Management of Diabetes</td>
<td>Gender Specific Medicine: Cardiovascular Disease &amp; Women's Health</td>
<td>Shoulder in Primary Care</td>
</tr>
<tr>
<td></td>
<td>Common Pediatric Infectious Diseases Management of the Febrile Infant</td>
<td>Abnormal Vaginal Bleeding: Menarche to Menopause</td>
<td>Disability Management &amp; Activity Prescription</td>
</tr>
<tr>
<td></td>
<td>Integrative Care for the Management of Osteoarthritis</td>
<td>Menopause &amp; Libido plus The Psychological Aspects of PMS &amp; Menopause</td>
<td>Hands-On Workshop</td>
</tr>
<tr>
<td></td>
<td>Coronary Artery Disease Secondary Prevention</td>
<td>Update on Osteoporosis</td>
<td></td>
</tr>
<tr>
<td>Day 2</td>
<td>Gender Specific Aspects of Health Promotion</td>
<td>Group Appointment Model of Care</td>
<td>The Ankle &amp; Leg</td>
</tr>
<tr>
<td></td>
<td>Integrative Care for Congestive Heart Failure</td>
<td>Providing Evidence-Based, Cost Effective Clinical Preventive Services for Adult Women</td>
<td>Common Foot Problems</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Disability Management &amp; The Activity Prescription</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Hands-On Workshop</td>
</tr>
<tr>
<td>Day 3</td>
<td>Improving Disability Management, Depression in Primary Care</td>
<td>Cultural Competency Skills Workshop</td>
<td>The Knee in Primary Care</td>
</tr>
<tr>
<td></td>
<td>Asthma: Current Concepts &amp; Pediatric Preventive Services</td>
<td></td>
<td>Disability Management &amp; The Activity Prescription</td>
</tr>
<tr>
<td></td>
<td>Sociological Aspects of Women's Health</td>
<td></td>
<td>Hands-On Workshop</td>
</tr>
<tr>
<td></td>
<td>Women's Health Issues In the Workplace</td>
<td></td>
<td>Low Back Pain</td>
</tr>
<tr>
<td>Day 4</td>
<td>The Brand Called YOU: Clinician Service Behaviors That Create Heart for Members, Media, Colleagues &amp; Community</td>
<td></td>
<td>Demonstration Physical Exam for LBP</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Hands-On Workshop</td>
</tr>
<tr>
<td>Day 5</td>
<td></td>
<td></td>
<td>CTDs of the Neck &amp; Upper Extremity</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Hands-On Workshop</td>
</tr>
</tbody>
</table>

**FOR A COMPLETE CONFERENCE BROCHURE, CONTACT**

Helen Taylor, Conference Coordinator
KPNC Occupational Health, 1800 Harrison St., 21st Floor, Oakland, CA 94612
(510) 987-4374 (phone) + (510) 873-5137 (fax)
e-mail: Helen.Taylor@ncal.kaiser.org
"Ascent" by Brad Becker, MD

This image was created as a holiday greeting card for 1998. Images of sherpas were decolorized and superimposed on a photo taken in the Everest Region of Nepal. The doorway was applied and enhanced with a photo flare to create the sense of a spiritual ascent. The hand was superimposed to capture the sense of struggle involved in life's journeys. More of Brad's work can be seen on the cover, as well as on pages 16 and 72.
# Index of Articles

## Volume 3

### By Section

**A Word from the Medical Directors**


**Book Review**


"The Water We Drink,” by Joshua Barzilay, MD; Winkler G. Weinberg, MD; J. William Eley, MD, MPH. 1999;3(2):89.

**Clinical Contributions**


**Editors’ Comments**


Evidence-Based Education: Developing Kaiser Permanente Faculty For the New Millennium. 1999;3(1):52-5.


The KP Promise, Permanente Practice, and the Competitive Edge: Highlights from the National Operations Meeting.
<table>
<thead>
<tr>
<th>Title</th>
<th>Volume</th>
<th>Issue</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ohio Region's Pain and Palliative Medicine Program.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Using Information from Linkage Research Studies to Improve</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**The Lighter Side of Medicine**


**Medical Legal Update**


**Original Research**


**Soul of the Healer**

The Sleep Thief. 1999;3(1):60.

**By Author**


Farr, N. Good Food. 1999;3(3).
Felitti, VJ. “The Water We Drink,” by Joshua Barzilay, MD; Winkler G. Weinberg, MD; J. William Eley, MD, MPH. 1999;3(2):89.
Justin, RG. The Exception to a Rule. 1999;3(1):62.
Laskiewicz, T. Hope. 1999;3(1).
Lawrence, R; Ettinger, K; Barrett, M; Chang, K; Gill, F; Carney, J. Exercise-Induced Asthma. 1999;3(3):19-24.
Massimino, F; Janisse, T; Overton, C; Hurley, J. Evidence-Based Education: Developing Kaiser Permanente Faculty For the New Millennium. 1999;3(1):52-5.
Parsons, DW. A Bill or Not a Bill? 1999;3(2):100-1.
Rasgon, S [moderator]; Cahill, A; Coffey, S; Loveland, D; Parsons, DW; Stewart, J; Thomas, B. Kaiser Permanente’s Public Image: Impact and Response. 1999;3(1):73-8.

Steinbruegge, JM; Sachs, RH; Bonacum, D; Gilbert, MN; Koltun, LB. A Physician's Call to Action: Delivering a Superior Care Experience. 1999;3(3):49-53.

Tan, KM. Continuing Medical Education. 1999;3(3):5.


Tuso, PJ; Murtishaw, K; Tadros, W. The Easy Access Program: A Way to Reduce Patient No-Show Rate, Decrease Add-Ons to Primary Care Schedules, and Improve Patient Satisfaction. 1999;3(3):68-71.


Memory

“As for me, all I know is that I know nothing. And when I want to know something, I look it up in books—their memory never fails.”

Arturo Perez-Reverte,
The Club Dumas
CME Evaluation Form

All PMG physicians may earn up to two hours of Category 1 credit for reading and analyzing the four designated CME articles, selecting the most appropriate answer to the questions below, and successfully completing the evaluation form. This form must be returned (fax or mail to the address listed on the back of this form) to The Permanente Journal by April 30, 2000, to receive credit. You will receive an acknowledgment by May 31, 2000. You must complete all sections to receive credit.

The Kaiser Permanente National Continuing Medical Education Program (KPNCMEP) is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians. The KPNCMEP takes responsibility for the content, quality, and scientific integrity of this CME activity. The KPNCMEP designates this educational activity for up to two hours of Category 1 CME credit for each TPJ issue. This credit is applicable to the AMA Physician Recognition award and/or state award. Each physician should claim credit for only those hours that were actually spent in this educational activity.

Section A.
Article 1. A Retrospective Review of 2076 Prostate Ultrasonograms in One Urology Practice (page 17)

Which of the following statements are true: (Circle all that apply)
   a. The majority of men with a PSA value >4.0 will have prostate cancer
   b. Men with a PSA value ≤4.0 will not have prostate cancer
   c. Almost one half of men with a PSA value >10.0 will have prostate cancer
   d. Men with a PSA density value ≤0.15 will not have prostate cancer

The highest positive biopsy rate was seen when: (Circle all that apply)
   a. The PSA value was >10.0
   b. The PSA value was >10.0 and the DRE was positive
   c. The PSA value was >10.0 and the TRUS was positive
   d. The PSA value was >10.0 and the DRE and TRUS were both positive

Article 2. The Medicine Wheel: Understanding “Problem” Patients in Primary Care (page 34)

The Medicine Wheel of the Constitution of the Human teaches us that strength and balance in all four quadrants equals wellness and equals health. In which quadrant is one most likely to find imbalance in most people?
   a. Intellectual
   b. Spiritual
   c. Emotional
   d. Physical

A major source of imbalance in people’s lives can be the experience of trauma. What are the three rules of survival that govern families in which trauma is occurring?
   a. Eat, drink, and be merry
   b. Don’t talk, don’t trust, don’t feel
   c. Don’t eat, don’t drink, be grumpy
   d. Talk, trust

Article 3. Notes From the Permanente Executive Conference—Improving the Health Care Value Equation: Access, the Care Experience and Resource Management (page 56)

Various models of improved member access share some common success factors, including: (Circle all that apply)
   a. Members choosing and seeing their own primary care provider
   b. Financial incentives to health care team members
   c. Actionable patient satisfaction measurement and feedback
   d. Focused and committed leadership

Success factors common to various hospitalist programs throughout Kaiser Permanente include the following: (Circle all that apply)
   a. Effective communication among PCPs, hospitalists, and patients
   b. Management of patient expectations
   c. Use of 2-tiered triage admissions protocols
   d. Physician buy-in
Article 4. **A Functionally Interactive Intranet Clinical Information and Tracking System for Managing Pediatric Populations Affected with Chronic Diseases** (page 62)

What are the main building blocks for a successful clinical tracking system? (Circle all that apply)

- a. An intact Local Area Network (LAN)
- b. A secure system setup
- c. A Web-based product
- d. A reliable system that can be replicated and customized

The utility of an Intranet system depends on: (Circle all that apply)

- a. The computer savvy of potential users
- b. The ability to improve quality and consistency of care to targeted populations
- c. Being easily transferable to multiple specialties
- d. Not being dependent on cost
- e. Its ability to coordinate specific health efforts of multiple departments and clinics

---

Section B. Referring to the CME articles and the stated objectives, please check the box next to each statement as appropriate

<table>
<thead>
<tr>
<th>Article 1</th>
<th>Article 2</th>
<th>Article 3</th>
<th>Article 4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The article covered the stated objectives</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I learned something new that was important</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I plan to use this information as appropriate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I plan to seek more information on this topic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I understood what the author was trying to say</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

Section C.

What change(s) (if any) do you plan to make in your practice as a result of reading these articles? _________________________________________

---

Section D. (Please print)

Name: ____________________________ E-mail Address: ____________________________

Address: ____________________________

______________________________

Signature: ____________________________ Date: ____________________________
Instructions for Authors

Send all manuscripts to:
Merry Parker, Managing Editor
The Permanente Journal
500 NE Multnomah St, Suite 100
Portland, OR 97232
(503) 813-2659

Editorial Policies

Manuscripts are received with the understanding that they have not been published or submitted for publication in whole or in part elsewhere, except for a scientific abstract, unless otherwise specified. Manuscripts will be reviewed by the Editor, Associate Editors, members of the Review Board, and appropriate specialists internally and externally as deemed necessary. Acceptance of a paper for publication is based on the relevance, quality of work described, clarity of the presentation, and especially the applicability to daily clinical practice. If the article is accepted for publication, editorial revision may be made to aid clarity and understanding without altering the meaning (see Proofreading). Authors are reminded that they assume full responsibility for final wording and form of all materials submitted for publication. The contact author will be required to complete coauthor and acknowledgement consent forms before publication.

Articles, editorials, letters to the editor, and other text material in the Journal represent the opinion of the authors and do not necessarily reflect the opinion of Kaiser Permanente.

Authors submitting a manuscript do so with the understanding that if it is accepted for publication, copyright of the article, including the right to reproduce the article in all forms and media, shall be assigned exclusively to the publisher. The publisher will grant any reasonable request by the author for permission to reproduce any part of his/her contribution to the Journal.

Types of Papers

There is no required length, although concise, readable, and practical articles within the ranges listed are preferred. Emphasize information that clinicians can use in their practice, that gives them regional and national perspective, and that integrates “Permanente Medicine” into the largest scope of health care delivery.

Notes About Specific Sections

• Clinical Contributions
  Clinical articles on the practice of medicine within The Permanente Medical Groups and their affiliates. Article topics may include reviews of “successful” practices, programs and policies, and analyses of new technologies.
  (word count range is 725-5000)

• Original Research
  Articles on Kaiser Permanente’s research contributions through original, empirically-based research in areas of great clinical importance. This includes outcomes research, studies that use Kaiser Permanente databases, and rigorous evaluations of best practices and innovations in clinical care.
  (word count range is 725-5000)

• Health Systems
  Articles from a “systems” perspective, recognizing that medicine is practiced in the larger context of health care, including ambulatory care delivery, hospital strategy, program expansion, and network development and is supported by information technology and the Internet. Growth in this system occurs through the leadership, education, and development of clinicians.
  (word count range is 725-3000)

• External Affairs
  Nonclinical articles on external issues related to the practice and perception of Permanente Medicine. These may include articles by customers and consumer groups, as well as internally generated articles on health policy, the media, the marketplace, and our social mission.
  (word count range is 725-3000)

• Medical Legal Update
  Articles educating clinicians about medical-legal issues, including risk management, claims review, loss prevention, and ethical issues. Improved clinician communication with patients, families, and the health care team is the goal.
  (word count range is 725-1400)

• Soul of the Healer
  Poetry, stories, musings, and nonfiction articles written by Permanente clinicians as an expression of the soul of the healer. This is a forum to appreciate each other personally through creativity in the humanities.
  (word count range is 725-2200)

• A Moment in Time
  A look back at milestones in the history of the Permanente Medical Groups.
  (word count range is 700-740)

• Abstracts
  Abstracts from articles published in other journals, preferentially featuring the work of Permanente physicians.

• Announcements
  Significant achievements related to the practice or management of medicine by Permanente physicians or Permanente Medical Groups. Also posted will be upcoming courses, meetings, and conferences sponsored by the Permanente Medical Groups or Kaiser Permanente.

• The Lighter Side of Permanente Medicine
  Jokes, stories, and humorous encounters tied to the practice of Permanente medicine, managed care, or health care in general.

Cover Letter

In a cover letter, please give a concise statement of the authors’ view of the importance and uniqueness of the article. Also provide several names and addresses of non-Kaiser Permanente experts who could provide informed, objective reviews of the work. The names of any persons considered unlikely by the authors to supply unbiased reviews may also be submitted; this request will be honored. It is important that the cover letter also include the names, addresses, phone numbers, and fax numbers of all coauthors.

Manuscript Preparation and Processing

A 3-1/2” disk containing the article and one complete paper copy of the manuscript must be submitted, along with a photograph of the author(s) labeled with name and a 2-3 sentence author profile. (Please, no photos smaller than 2x3 or larger than 5x7.) If more than four authors, submit the authors’ profiles only—no photographs.

Manuscripts must be typewritten in a word-processing program (identify program and platform used), double-spaced, with margins of at least 1 inch. All parts of the manuscript must be included in a single file on the disk, and the disk file must match the printout. Tables and illustrations are typeset from hard copy and need not be included on the disk. The 3-1/2” disk must be labeled with the first author’s name, an abbreviated article title, the file name, the disk format (eg, Mac), and the word-processing software used (eg, Microsoft Word 6.0).
The first page of the manuscript should contain the following information: 1) title of paper; 2) authors’ names; 3) name(s) of Kaiser Permanente Division and medical office in which work was done; 4) name and address of author to whom communications regarding the manuscript should be directed; 5) telephone and fax number of the communicating author; 6) word count.

The second page of an Article (Clinical or Nonclinical) should contain an Abstract (limit: 250 words). The abstract for Nonclinical Articles should use these headings: Context, Objective, Design, Main Outcome Measure(s), Results, and Conclusion(s). Also list key words and terms, in alphabetical order, under which you believe the article should be indexed.

Begin the text on a new page. Define all abbreviations except those that have been approved by the International System of Units for length, mass, time, electric current, temperature, luminous intensity, and amount of substance. Provide a footnote or box at the beginning of the article to define abbreviations when great numbers of abbreviations are used. Do not create abbreviations for drugs, procedures, or substrates. Use generic drug names. If a brand name is used, insert it in parentheses after the generic name.

Preparing Illustrations and Tables

Illustrations and tables are desirable and highly encouraged because they expand the value of the article. Tables and illustrations must be cited in order in the text using Arabic numerals. Submit one complete set as glossy prints or high-quality laser prints. Do not staple, clip, or write heavily on the back. Paste a label on the back of each illustration indicating its number in order of appearance, author’s name, and the top edge of the picture.

Legends for illustrations should be typewritten, double-spaced, on a separate sheet, and included at the end of the manuscript. A legend must accompany each illustration. Figures, especially charts, graphs, and line drawings, are generally reduced in size for publication. To maintain legibility, all numbers, letters, and symbols should be large enough originally so that when reduced they will remain at least 2 mm high. Each table should be typed on a separate sheet and appropriately numbered. Abbreviations used in the table should be defined in the legend to the table; legends should be typed on the same sheets as the tables.

Any figure, table, or long portions of text that have been previously published must be accompanied by a letter of permission to reprint, signed by the publisher, at the time of submittal. It is the responsibility of the author to obtain such permission.

Legal and Ethical Considerations

Avoid use of patients’ names, initials, and medical record numbers. A patient must not be recognizable in photographs or case descriptions unless written consent of the subject has been obtained.

References

References must be numbered with Arabic numerals and cited in the text in numeric order. The reference list at the end of the article must also be in numeric order (do not list references in alphabetical order). The list should be double-spaced under the heading REFERENCES. Abbreviations for title of medical periodicals should conform to those used in the latest edition of Index Medicus.

Examples.
Journal article, one to six authors
Journal article, more than six authors
Journal article in press
(Note: A copy of the manuscript must be included.)
Complete book
Chapter of book

Editing Assistance
You can obtain help with preparing your manuscript from the Medical Editing Department, which is a resource available to many researchers throughout the Program. The department’s professional editors can help you organize your paper, edit your text, and verify references before publication in The Permanente Journal. Call Medical Editing at 510-987-3573 for further information.

Proofreading
Contributors are provided with galley proofs and are asked to proofread them for typesetting errors. Important changes in data are allowed, but authors are requested to not make excessive alterations. Galley proofs should be returned within 48 hours.

Checklist for Authors

- 3.5” disk labeled with author name, article title, file name, word count, disk format, and word-processing software used.
- Cover letter
- One copy of manuscript
- Title page
- Author profile (2-3 sentences)
- Author photo (no smaller than 2 x 3, no larger than 5 x 7)
- Structured Abstract (limit: 250 words): include key words
- References (double-spaced on a separate sheet)
- Illustrations, properly labeled (one original set)
- Figure legends (double-spaced)
- Tables (provide a brief title)
- Permission to reproduce previously published material, photographic consent