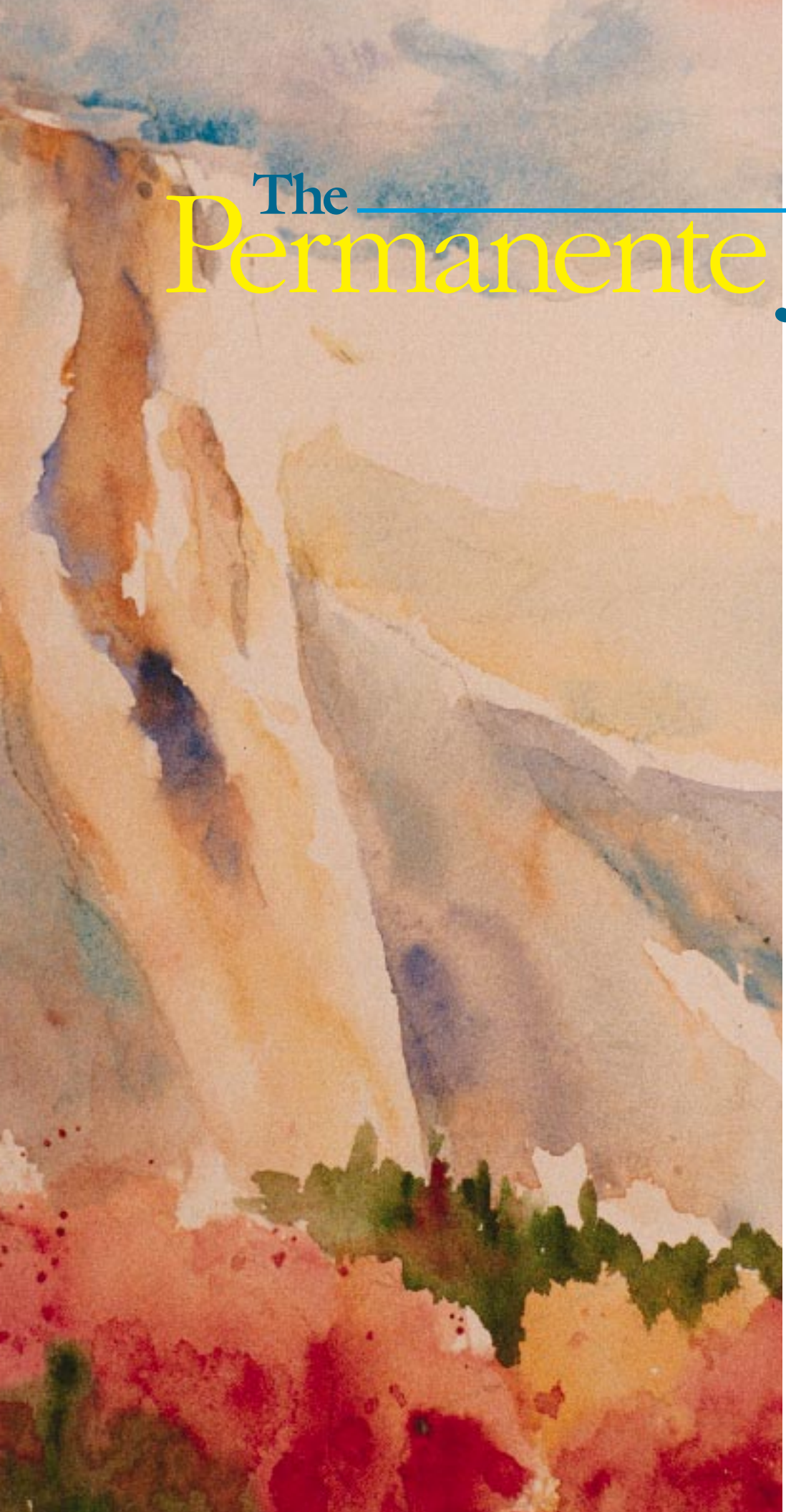

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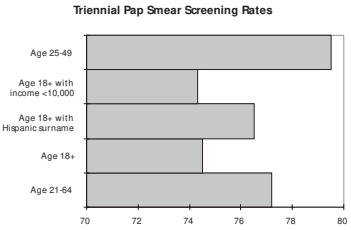

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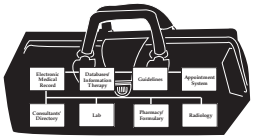

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If you would like to submit art for consideration for the cover of *The Permanente Journal* please use the following guidelines...

Send us a high-quality color photograph of your art no smaller than 4x5 and no larger than 8x10.

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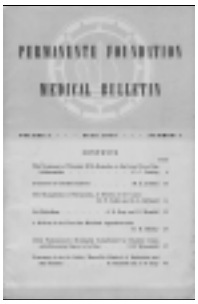

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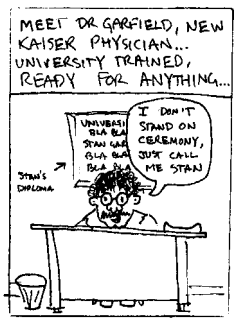

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Mission...
The Permanente Journal is published and written by the clinicians of the Permanente Medical Groups and KFHP, Inc. to assist them in delivering superior health care to our members and our communities.

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How to Contact The Permanente Journal...
E-mail us at permjournal@kpnwoa.mts.kpnw.org

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By Tom Janisse, MD

Editors' Comments

Beauty and Truth

In *The Permanente Journal* our goal is to bring you both beauty and truth, if you allow that we know neither for sure. On viewing this issue's cover art you must pause to catch your breath! A grand moment of Fall mountain watercolor becomes a beautiful vessel for the moments of imagination, experience and study that authors express through the words inside. It is all Permanente Practice.

With this image in mind the Editorial Team welcomes you to the second issue of *The Permanente Journal.* We are pleased that in the first issue we met, and in some cases exceeded your expectations. "Stunning," one said, as you can read in our letters section in which we cited representative perspectives of your clinician colleagues, senior leaders, and team members. For balance we also include constructive criticism, some of which we correct in the second issue. You believe as we do that *The Permanente Journal* achieves progress toward several current and future organizational goals.

Companion Perspectives

In this second issue you will find several companion articles in our attempt to bring you multiple points of view and practice experiences: partnership agreements, psychobehavioral approach to clinical care, consumer protection, and practice redesign. We have a strong interest in future articles that will be multiple-authored from people in different regions, disciplines, and departments as we search for different experiential viewpoints. We can all benefit from comparative knowledge and practice, though it must be highly usable, easily applicable, and effective for achieving valuable outcomes.

Agreements and Cartoons: The Past and the Future

As we seek to grow forward into the future from roots in the past, you will see linking documents, concepts, and visual images. For example, recognize the remarkable similarity between the Tahoe Agreement of 1953 and the National Partnership Agreement of 1997. This reminds us of the importance and necessity of awareness of the present, evaluation of the current state of practice, and study and reaffirmation of the values of the past that when renewed compel us to a better future. What is most remarkable in this regard is that over time, things change yet things stay the same. In this case both the content of the issues and the form of the process and solution were nearly identical. Some principles are timeless and wisdom resides in past experience, though its application in a new setting necessitates careful analysis and interpretation.

Nurturing a new present that will grow a new future is equally necessary, even in the form of cartoon-strips: Joe Oleniacz's, "Dr. Garfield," joins Steve Bachhuber's, "Life On The Sunnyside" in this issue. Humor often breaks through the dense coming and going of our day to reveal truth. Through this insight we may readjust our plan. By linking formal agreements and informal cartoons in these paragraphs, I have created a wide spectrum of relationship. However, all elements of our work participate in organizational success. In *The Permanente Journal* we provide a durable forum for our work as we live it. That Kaiser Permanente has such history and imagination to draw on is one of our sustainable competitive advantages. Let's celebrate this.

Distribution

As is often the case, creating a new product or service venture requires creating a new process—the development of communication and distribution networks essential for *The Permanente Journal* to function effectively for all 10,000 physicians in our national medical group, the 3,000 providers they work with, and the thousands of nurses and other professionals on the health care delivery team. Because these people haven't regularly communicated between regions there are no established information vehicles or distribution channels. The Editorial Team has had to overcome this relative absence through extensive work to discover how best to ensure that each issue reaches you in a timely manner. Unless the means exists to quickly deliver important information to a clinician's desktop, optimal learning becomes disabled. The development and refinement of these channels is ongoing and will serve other interregional groups and projects.

Communication

The Permanente Journal does achieve one mode of national information exchange through hardcopy; electronics technology achieves, through near instant information transfer, another mode. What we need though is a matrix of media interconnectivity to realize truly clinician-friendly knowledge transfer. Thus we look to a fluid integration of the Internet, electronic mail, voice-mail, audio and video conferences, hardcopy in the form of quarterly journals, written letters, faxed and printed newsletters, and multi-access forums such as KP Exchange, and multi-user forums such as the Care Management Institute's chat room. Is it yet obvious to recognize that no one medium serves as a communication panacea? All mediums have their advantages and limitations. Together some mediums achieve synergy. Additionally, if we are to respect the variety of ways that adults learn and share knowledge, then maintaining a healthy respect for all forms appears most sensible. While people may at first think of *The Permanente Journal* as a static document, we envision a continued integration into the complex, existing communication capabilities, and to find those associations between mediums that produce the greatest synergy. In contrast to accelerating electronic connectedness many are rediscovering the high value of actual personal interaction through individual dialogue, group discussions and group meetings. And as many of us are finding, you cannot overcommunicate, though we often miscommunicate. After improving communication and information exchange in our national group we will then want to reach outside to our contract and network clinicians, to other medical groups and health plans, and to other health care entities, and individual consumers.

TOM JANISSE, MD, is an Assistant Regional Medical Director and serves as the Health Plan and Human Resources Liaison for Northwest Permanente, PC in Portland, Oregon.

Quality and Learning Conference

The Permanente Journal team is preparing for the Kaiser Permanente Quality and Learning Conference in San Diego in November. *The Journal* Advisory Board and Editorial Team will meet to review and evaluate the first two issues, assess the effectiveness of our initial strategy in meeting clinicians and medical group needs, and plan for the next issues. The conference committee approved our proposal for a poster presentation, so we will be there on the demonstration floor to talk with you and hear your feedback. We encourage your participation through authorship of articles or creation of visual art for our future covers and interior illustrations, drawings and photographs. Members of the Editorial Team will look for opportunities to meet with you in your areas to further discuss how *The Permanente Journal* can be of value to you. Enjoy reading this second issue and anticipate the third issue in the winter where you will find articles on access to specialists, the genome project, dyspepsia, managed genetic care, and brand strategy. And please let us know about areas you would like to see in future issues. Thank you for your support.

Clinical Contributions

Arthur L. Klatsky, MD, Editor

It is with a sense of eager anticipation that I join the staff of *The Permanente Journal* as an Associate Editor with responsibility for Clinical Contributions. I am grateful to my predecessor, Dr. Phillip M. Brenes, for launching this section and for making the assumption of this role a smooth transition. The concept of the *Journal* is a wonderful idea, probably overdue, and with the leadership already evidenced, easily within the capabilities of Kaiser Permanente. This *Journal* is likely to develop into an important publication, influential both in Kaiser Permanente and in the general medical community. Thus, it is an honor to play a role.

The Clinical Contributions section offers an opportunity for Kaiser Permanente practitioners to present new findings, reviews, analyses, and practice programs of interest and importance. Full length and brief articles, observations, or reports are welcome. That we have an abundance of talent for this endeavor is a given. Our vast clinical experience should be shared. This new forum should act to encourage creative medical writing, with resultant beneficial effects upon our self-esteem and upon the view others will have of our capabilities.

This issue presents a variety of such articles in several areas of clinical interest. It also includes a reprint, with current commentary, of a 54 year-old article by one of our pioneering physicians, Dr. Cecil C. Cutting. It is planned to publish, from time to time, several such reprints by early Kaiser Permanente physicians, for historical interest and to demonstrate the timeliness of much material published long ago. ❖

Artful Work

"... our solutions are too often ineffective because they address the symptoms rather than the causes. We change our ideas and techniques without changing our beliefs....

Because we need to question our current beliefs and orders.... I am inspired by artists: novel poets, potters, painters, and other people who are sometimes considered oddballs by those of us who inhabit organizational corridors. Artists embrace different beliefs and orders and see work differently than do most people who work in organizations. We have much to learn from them....

Actors in rehearsal speak of 'going off book,' or reciting one's lines without the script.... Going off book means that the actor is no longer looking to an external source—the script guidance.... The actor finds self-expression through the character ... stops wondering how to be, takes ownership of the character, and becomes self-expressive."

Dick Richards, Artful Work, Berkley Books, New York.

ARTHUR KLATSKY, MD, is a Senior Consultant in Cardiology for The Permanente Medical Group, Inc. in Oakland, California, and is an Associate at the Division of Research.

By Barbara Scherokman, MD

Selecting and Interpreting Diagnostic Tests

This article describes basic principles of selecting and interpreting diagnostic tests. Before selecting a diagnostic test, the clinician must first determine probability of disease by evaluating the patient's medical history and results of physical examination. To then decide whether to order a particular diagnostic test, the clinician considers the characteristics (sensitivity, specificity, and false-positive rate) of the proposed test to determine whether results of the test could show a different probability of disease than would be estimated without testing. Clinicians learn the most from a test when probability of disease as estimated without testing (i.e., the "pretest probability") is between 40% and 60%. The "threshold" approach can also aid clinicians in deciding whether to withhold treatment, order more tests, or administer treatment without subjecting patients to risks of further testing.

Introduction

The high cost of medical care has led to interest in encouraging physicians to make more accurate, cost-effective clinical decisions. Diagnostic tests can aid clinical assessment of disease probability so that therapeutic decisions can be made in patients' best interest, but testing contributes substantially to the cost of medical care, and tests ordered or used improperly can also cause diagnostic error and increase the risk of improper treatment. This paper therefore discusses basic principles of selecting and interpreting diagnostic tests to maximize both diagnostic accuracy and cost effectiveness. These principles can be applied to laboratory testing, radiologic testing, and other diagnostic procedures. The most important concept for clinicians to understand is that tests should be selected and interpreted in a way that allows them to influence the clinician's estimate of disease probability.

"The most important concept for clinicians to understand is that tests should be selected and interpreted in a way that allows them to influence the clinician's estimate of disease probability."

Before ordering a diagnostic test, clinicians should remember a major principle discussed by Sackett et al,[1] who stated that clinical data obtained by history and examination are far more powerful than data obtained from diagnostic laboratory tests and are usually sufficient to establish a definitive diagnosis. In addition, we should remember that absolute diagnostic certainty is impossible to attain, regardless of how much laboratory data are obtained.[2] A diagnosis is a hypothesis which test results cause to appear more or less likely to be true. As Kassirer stated, "our task is not to attain certainty, but rather to reduce the level of diagnostic uncertainty enough to make optimal therapeutic decisions."[2] More tests do not necessarily lead to more certainty, however. Extensive testing may give clinicians and patients a false sense of security which may not be justified, given the possibility of false-positive and false-negative test results. False-positive test results may increase the risk that more invasive or inappropriate testing will be done or that unnecessary, even dangerous therapy will be given. False-negative results may increase the risk that appropriate treatment will be withheld.[3]

Another aspect of test utilization discussed here is the decision whether to withhold therapy, order another test, or administer therapy. This is referred to as the "threshold approach" to making clinical decisions.[4,5] Using this approach, clinicians must take into account the reliability, value, and risks of both testing and treatment.

Pretest Probabilities of Disease

The degree of diagnostic certainty needed in making clinical decisions is a function of the degree of risk presented by the therapeutic options and the clinician's estimate of disease probability. When considering administering a specific therapy which is highly efficacious and has a low level of risk, few tests are needed because clinicians can accept substantial diagnostic uncertainty. On the other hand, in situations where treatment options are less effective and more risky, clinicians often need a higher degree of diagnostic certainty.[2]

The second essential aspect of making clinical decisions is that the likelihood or probability that a disease is present must be determined *before* the clinician orders diagnostic tests. To avoid ambiguity, the clinician could assign a number (e.g., between 0 and 1) to the probability of disease presence instead of using a word such as "unlikely" or "possible."[3]

As shown in Figure 1, the probability of disease presence as estimated before diagnostic testing (i.e., the pretest probability) can be depicted as a point on a continuum ranging from absent (number = 0) to present (number = 1).[3] For example, pretest probability of 0.95 indicates a high degree of confidence that a disease is present, whereas a pretest probability of 0.01 indicates the clinician's belief that the disease is almost certainly absent. Positive test results (T+) increase the probability that a disease is present, and negative test results (T-) decrease that probability. The probability of a disease being present after application of a test is called "posttest probability." Tests vary with respect to their ability to influence the pretest probability of disease.[3]

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Determining the Probability of Disease

To help determine the probability that a specific patient has a certain disease, clinicians rely on known prevalence of that disease in the patient population. For example, a patient seen in a medical clinic in Atlanta for fever and chills is more likely to have a urinary tract infection than malaria, which would be a much more probable diagnosis in central Africa. To determine the pretest probability of disease, prevalence can be adjusted upward or downward, depending on findings from the medical history and physical examination. For example, the probability of hyperthyroidism (e.g., 0.8) would be much higher than the probability of Wilson's disease (e.g., 0.01) when considered as a possible cause of tremor in a 25-year-old man seen for an action tremor of the hands and tachycardia, but Wilson's disease would be much more probable (e.g., 0.95) if the patient's brother had been diagnosed with Wilson's disease.

To help clinicians determine pretest probabilities, clinical guidelines ("clinical prediction rules") have been developed. These rules use signs and symptoms of disease from far more patients than could ever be seen by an individual physician. Accordingly, Billewicz et al[6] have developed a clinical prediction rule for hypothyroidism: Points are assigned to various signs and symptoms, and the pretest probability of disease is determined by adding up the points. Caution must be used in applying these rules, however, because the population from which the rule was derived may have different demographics and spectrum of disease than the population which includes the patient being seen. These rules therefore permit only rough estimation of pretest disease probability.

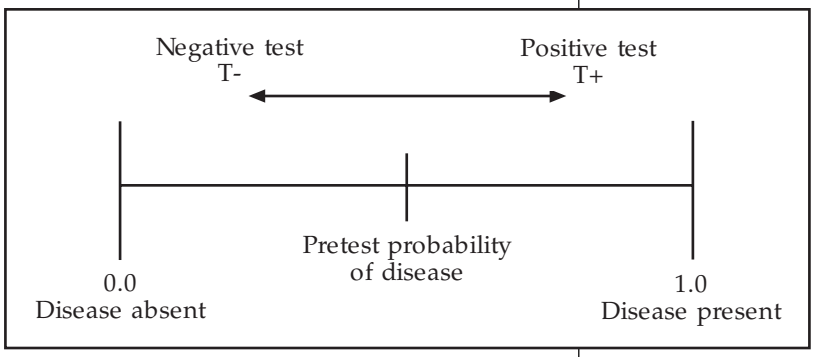

Fig 1. Pretest probability of disease

Pretest Probability %	99	80	50	20	1
Positive Predictive Value %	99.9	99	95	83	16
Negative Predictive Value %	16	83	95	99	99.9

Table 1. Relation between pretest probability, positive predictive value, and negative predictive value of medical diagnostic tests.

Major Characteristics of Tests

An ideal test could distinguish absolutely between patients who do and who do not have disease. The clinical usefulness of a test is determined by how much it deviates from this ideal. Data on test characteristics are derived from studying the test against a "gold standard" test, the test that definitively determines the presence or absence of disease. An example of a "gold standard test" would be a biopsy. Patients whom biopsy has shown to have the disease and patients shown not to have the disease are given the diagnostic test in question, after which a two-by-two table (Fig. 2) is used to compare results of biopsy and diagnostic test.

The first two elements of the comparison show how well the diagnostic test correctly identifies patients with and without the disease: *Sensitivity* describes the ability of a test to correctly detect disease; *specificity* describes the ability of a test to correctly identify absence of disease. The *false-positive rate* (cell "b" in Fig. 2) is the tendency of a test to incorrectly classify a patient as having a disease, whereas the *false-negative rate* (cell "c" in Fig. 2) is the tendency of a test to incorrectly classify a patient as not having a disease.[3]

Sensitivity and specificity are said to be "stable" properties of a test because they do not vary with pretest probability of disease. Unfortunately, these test properties are not clinically useful, because in a clinical situation the physician does not know the results of the gold standard. It is much more useful to know the probability of disease in a patient who has a positive test result (the positive predictive value) and the probability of nondisease in a patient with a negative test result (negative predictive value) (Fig. 2). For example, several weeks after a 35-year-old man from rural Virginia awoke with unilateral Bell's palsy, results of ELISA serologic test for Lyme disease were positive at 1:10. Figure 3 describes a study of 289 patients in which sensitivity, specificity, and positive and negative predictive values were derived for results of the Lyme disease serologic test.[7]

These test characteristics are usefully clinically, but unfortunately they are not stable properties (i.e., they vary with the pretest probability of disease). When testing a patient who has a low probability of having the

"An ideal test could distinguish absolutely between patients who do and who do not have disease. The clinical usefulness of a test is determined by how much it deviates from this ideal."

disease, most positive test results will be proved false. In other words, as the pretest probability of disease falls, the predictive value of a positive test also falls and the predictive value of a negative test rises. As the pretest probability of disease falls, a negative test result is more informative than a positive result. Even a laboratory test with 95% sensitivity and 95% specificity loses positive predictive value and gains negative predictive value as pretest probability of disease falls (Table 1).

A test is most informative when the pretest probability of disease is between 40% and 60%. In other words, a diagnostic test is most useful and changes the pretest probability of disease if the patient is believed to have a 50:50 chance of having the disease. At this level of pretest probability, a positive test result essentially confirms the diagnosis, whereas a negative diagnostic test result essentially eliminates the disease from the differential diagnosis. This effect can be seen in Table 1, which shows that when pretest probability of disease is 50%, a positive test result raises the pretest probability to 95% and a negative result lowers the pretest probability to 5%. Thus, a test is more helpful clinically if it changes the pretest probability of disease greatly; and this occurs at the midportion of the table when the clinician is equivocal about the diagnosis.

"In other words, a diagnostic test is most useful and changes the pretest probability of disease if the patient is believed to have a 50:50 chance of having the disease."

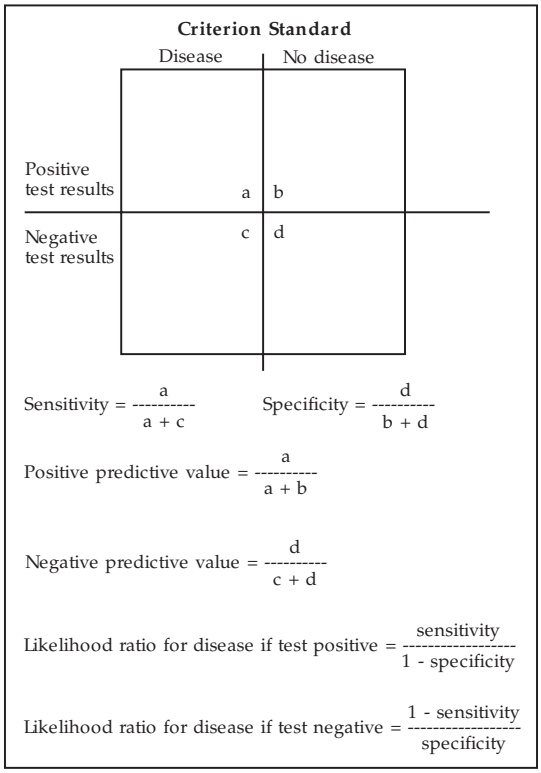

Fig 2. Algorithm used for comparing results of diagnostic test and biopsy.

Determining the Reliability of Tests

An index—the "likelihood ratio"[8]— has been developed to describe how reliably a diagnostic test detects disease. The likelihood ratio compares the proportions of patients with and without the disease who have been given the diagnostic test and divides the true-positive rate by the false-positive rate (Fig. 2). Thus, the likelihood ratio represents the odds that a given diagnostic test result would be expected in a patient who has the disease.

In other words, the likelihood ratio for disease if test result is positive represents the odds that a positive test result actually came from a patient with the disease. For example, in the Bell's palsy patient mentioned above (Fig. 3), a likelihood ratio of 7 assigned to positive serologic test results for Lyme disease means that a positive test result is 7 times as likely to have come from a patient with Lyme disease as without the disease. The likelihood ratio for absence of disease when the test result is negative represents the odds that a negative result actually came from a patient with the disease.

Likelihood ratios are clinically useful because they are more stable than the positive and negative predictive values and do not vary with change in disease prevalence (pretest probability). They are clinically useful also because they can be calculated for several levels of test result. A normogram (Fig. 4) has been developed for use with likelihood ratios to determine the posttest probability of disease if the pretest probability and the likelihood ratio for the specific test are known.[8] For example (using Fig. 4), if the pretest probability of

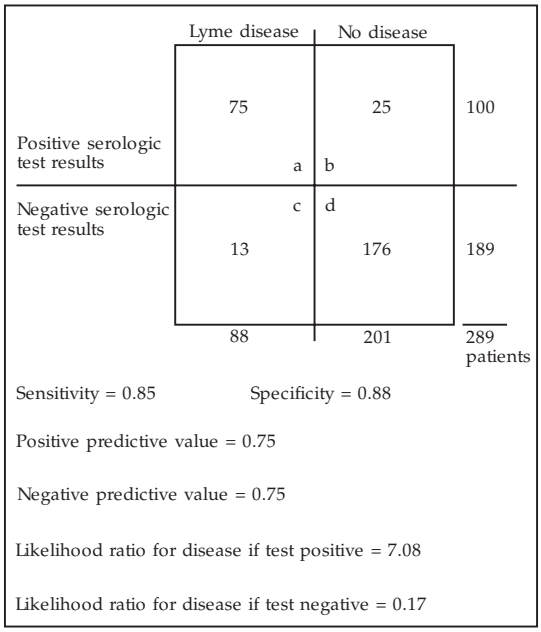

Fig 3. Quantification of test characteristics as derived (using algorithm in Fig 2) for results of Lyme disease seriologic test.

Lyme disease in the Bell's palsy patient is estimated to be about 2%, the clinician would anchor a ruler at 2% on the left (pretest probability of disease) scale, then rotate the ruler to align it with the likelihood ratio of a positive serologic test result of 7 for Lyme disease on the center (likelihood ratio) scale; the posttest probability, 12%, would be found by following the ruler along to the scale at right. The serologic test result for Lyme disease would not raise enough suspicion of Lyme disease in the Bell's palsy patient to treat the patient. In other words, for this patient, in whom the clinical disease probability is low, a positive result for Lyme disease is most likely to be false.

The "Threshold Model": Evaluating the Need for Tests

In clinical practice, physicians are faced with three choices: to withhold treatment, to order a diagnostic test, or to treat without testing. Pauker and Kassirer[4] have described a model which uses two thresholds to aid clinicians in making clinical decisions: 1) a "no treatment/test" threshold, which is the disease probability at which the value of withholding treatment is the same as that of performing a test; and 2) a "test/treatment" threshold, which is the disease probability at which the value of performing the test is the same as that of administering treatment. The decision not to treat, to test, or to treat is determined by pretest disease probability and both thresholds. If the probability of disease falls within one of the end segments, testing will not prompt a different clinical action. The best clinical decision for probabilities below the "no treatment/test" threshold is to refrain from treatment; for probabilities above the "test/treatment" threshold, the best decision is to administer treatment. When the pretest disease probability lies between the thresholds, the test result could change the probability of disease enough to alter the therapeutic decision, so the best decision would be to administer a test. Tests that do not change the probability of disease enough to cross the threshold probability are not useful and should not be ordered. For example, the pretest probability of Lyme disease estimated for the Bell's palsy patient (i.e., 2%) is a smaller disease probability than the "no treatment/test" threshold so would not indicate treatment or serologic testing for Lyme disease. If probability of Lyme disease were 50%, serologic testing for Lyme disease should be done. Alternatively, if the probability of Lyme disease is 95%—a figure higher than the "test/treatment" threshold—the patient should be treated.

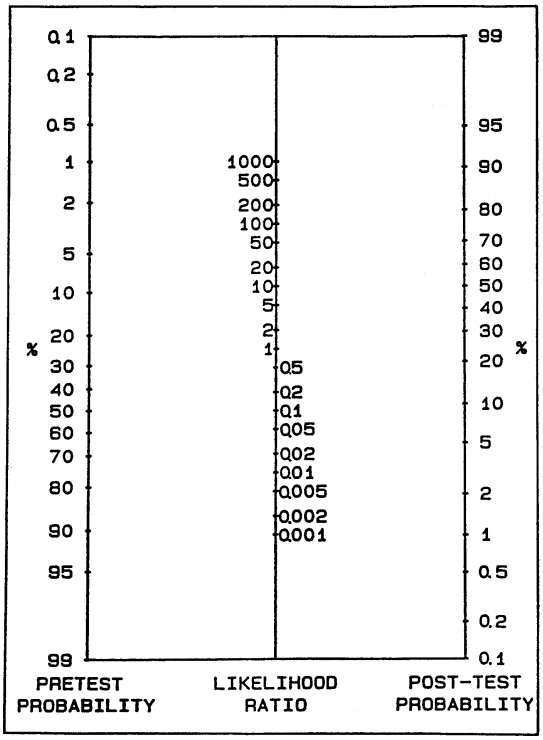

Fig. 4. Normogram[8] for use with likelihood ratio to determine pretest probability of disease if pretest probability and likelihood ratio for test are known.

Conclusion

Diagnostic tests should be selected and administered in a way that allows them to influence the clinician's estimate of pretest disease probability. This estimate is the major factor in determining whether to either withhold treatment, order more tests, or treat without subjecting the patient to the risks of further testing.[4] Laboratory tests are of greatest diagnostic use to clinicians who find themselves in a "50:50 dilemma" and cannot decide whether the patient does or does not have the disease in question. ❖

"In clinical practice, physicians are faced with three choices: to withhold treatment, to order a diagnostic test, or to treat without testing."

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Frequency and Determinants of Triennial Pap Smear Screening Rates

By Mark Binstock, MD, MPH
Gerald Pretorius, MD
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***Purpose**: Before 1993, no data on either 3 year rates of Papanicolaou (Pap) screening or factors determining screening rates were available for large populations except for results of self-reported patient surveys containing known inaccuracies. The purpose of this study was to investigate the factors determining 3 year rates of Pap screening among health plan members throughout Kaiser Permanente in Southern California.*

***Methods**: We analyzed computer files of enrollment, clinical encounters, and Pap reports.*

***Results**: Overall, 74.5% of the study cohort received ≥1 Pap smear during the 3 year study interval. Screening rates varied by patient's age, median income, copayment status, and number of visits to primary care departments. Women who had either their own assigned personal physician, a female personal physician, or both were more likely to have received Pap screening. Screening rates were inversely related to age of personal physician. Women who had personal physicians practicing in family practice (FP) departments were more likely to have received Pap screening than women who had personal physicians practicing in internal medicine (IM) departments. Multivariate analysis of women who had a personal physician assigned to them showed that women were more likely to receive Pap screening if they had a female FP personal physician (odds ratio (OR) = 1.13) or a female IM personal physician (OR = 1.23) than if they had a male IM or FP personal physician. We detected no statistically significant effect of provider age or Hispanic ethnicity when controlling for other variables.*

***Conclusions**: High rates of triennial Pap screening rates were documented. Major factors determining receipt of Pap screening were patient age and number of visits to primary care departments. Differences in screening rates associated with median income and personal physician's gender were smaller than those reported in other settings. Unlike patients in other settings, patients in this population who had older providers, greater out-of-pocket medical expenses, or Hispanic ethnicity did not have lower 3 year screening rates after controlling for other factors.*

Introduction

If screening of vaginal and cervical cytology (Papanicolaou smears) were performed appropriately, 90% of invasive squamous cervical cancers could be prevented.[1] For vaginal and cervical cytologic screening to be effective, a large proportion of the at-risk population must be screened. Screening programs which depend upon "opportunistic" screening—programs which test for an unsuspected disorder when a person sees a doctor for another reason—are much less effective than those in which an organized effort is made to screen an entire population.[2,3] The most graphic example of the failure of "opportunistic" screening comes from the Nordic countries.[3] Despite similar national policies concerning the frequency and age range of women to be screened, the efficacy of cytologic screening in the Nordic countries has varied greatly. After cytologic screening was introduced as an organized program reaching 80% of Iceland's population, mortality from cervical cancer fell 84% in that country, whereas it fell only 11% in Norway, where organized screening was limited to only one county.

Reaching the entire at-risk population is so important in determining the efficacy of a cytologic screening program. Therefore, methods must be designed to measure the proportion of women screened (identifying women who are unscreened) and to determine the factors which affect screening rates. As patients report more frequent, more recent, and more normal Pap smears than can be documented,[4-8] methods other than patient recall are needed to define who has or has not been screened. Vaginal and cervical cytologic screening rates have been reported to

Table 1. Characteristics of health plan members in study

Member Characteristic	N	Mean	SD	Median	Interquartile Range
Age	503,226	45.6 yr	15.8 yr	44 yr	24 yr
Median income*	465,720	$43,504	$18,004	$40,750	$21,661
Out-of-pocket expenditure for Pap smear	502,181	$4.30	$4.40	$5.00	$5.00
No. visits to primary care departments †	503,140	10.5	9.9	8	11

SD = standard deviation.

* Based on median income reported by 1990 U.S. Census for residents of member's residential block.

† Outpatient visits to family practice, internal medicine, and obstetrics/gynecology departments during the study period.

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be lower in Hispanic populations.[9-11] in black populations,[10,12] in native white populations,[13] in the elderly,[9,10,14-16] in poor women,[9,10,14,16,17] and in women who have male physicians.[18] As many of these factors are interrelated, it remains unclear which factors are independently related to screening frequency. The dual purpose of this study was to determine the proportion of women aged ≥18 years continuously enrolled in Kaiser Permanente Southern California from October 1, 1990 through September 30, 1993 who had vaginal or cervical cytologic screening during that 3 year period and to investigate the effect of median income, ethnicity, copayment, patients age, number of primary care visits during the 3 year period, age and gender of personal physician, and personal physician's specialty on the rates of cervical or vaginal cytologic screening.

Methods

Health plan data files concerning membership, laboratory management, appointments, and personnel were merged to identify and determine screening rates for all 503,226 female members who were aged ≥18 years and continuously enrolled from October 1, 1990 through September 30, 1993. Periods of nonenrollment lasting <3 months were ignored because these members generally continue to receive care at Kaiser Permanente facilities.

Laboratory Management System files were used to determine Pap smear utilization during the same 3 year period for each member. The address of each member and the name of the member's personal provider was obtained from Appointment System files. Gender, age, and specialty of each personal provider was obtained from employee and physician personnel files. Members with Hispanic surnames (as determined by the 1990 U.S. Census) were counted as Hispanic. Members were considered to have the same median income as that reported by the U.S. Census for the member's residential block. Dates of each member's outpatient primary care visits during the 3 year study period were obtained from a computer database of appointments. Out-of-pocket costs paid by members for Pap smears were estimated using the appointment and laboratory copayment fee schedules which were in effect on September 30, 1993. (These figures are estimates because members whose coverage benefits changed over the study period might have paid various fees for their Pap smears.) Three year rates of Pap smear screening were determined using univariate and multivariate analysis.

We determined the unadjusted relation between member demographics, out-of-pocket expense, primary care utilization, and provider characteristics on Pap smear screening by comparing the characteristics of members who received a Pap smear during the 3 year study period. Differences in proportions were tested using the Pearson's Chi-Square statistic. Confidence intervals for unadjusted proportions were calculated using the normal approximation method.[19] Differences in adjusted proportions were tested using the Cochran-Mantel-Haenszel statistic. In unadjusted analyses, logistic regression was used to test for the joint effects of factors found to be significant predictors ($p < 0.05$) of Pap smear screening. Odds ratios and confidence intervals for adjusted effects were estimated from the logistic model. Point estimates and confidence intervals were rounded to the nearest 0.01. All statistical analyses were done using version 6.07 of SAS software (SAS Institute Inc. SAS users guide: statistics, version 6.07 edition, Cary, North Carolina: SAS Institute Inc.) for the MVS operating system. All statistical tests were conducted at the $p < 0.05$ level of significance.

Results

Table 1 presents selected characteristics of the study cohort. The membership is younger and more affluent than the general population, indicating that more members of health maintenance organizations (HMOs)

Table 2. Department and gender of providers studied

Department/gender of provider	No of members served	% study population
Family practice:	177,274	43.6
male	114,300	64.5
female	54,163	30.6
unspecified	8,811	5.0
Internal Medicine:	145,759	35.9
male	100,566	69.0
female	42,109	28.9
unspecified	3,084	2.1
Obstetrics/gynecology:	834	0.2
male	460	55.2
female	374	44.8
unspecified	0	0.0
Nonprimary care department	7,579	1.9
Unspecified department	75,027	18.5

"If screening of vaginal and cervical cytology (Papanicolaou smears) were performed appropriately, 90% of invasive squamous cervical cancers could be prevented."[1]

"Of women aged ≥18 years and continuously enrolled during the 3 year period studied, 74.5% had cervical or vaginal cytologic screening performed by our health plan in Southern California."

are actively employed. Approximately 19% of members were classified by surname as Hispanic. According to a 1990 survey of 3,930 health plan members, 51% were non-Hispanic white, 24% were Hispanic, 14% were black, 11% were Asian, and 1% were of other race. The differences in these membership rates is probably due to a combination of misclassification error and changes in membership demographics associated with secular changes in economic conditions and enrollment.

Personal providers were assigned to 406,473 members (80.8%) of the study cohort. Provider's department was identified for 331,446 (81.5%) of those members. Of the 323,867 members (97.7%) identified as having a primary care personal provider, the provider's gender and age were ascertained for 311,972 (96.3%) members. Table 2 shows department and gender distribution of personal providers assigned to members of the study cohort. Incomplete provider identification and categories with missing information are included in the table.

Of women aged ≥18 years and continuously enrolled during the 3 year period studied, 74.5% had cervical or vaginal cytologic screening performed by our health plan in Southern California.

During the 3 year interval, 74.5% of the cohort received at least one Pap smear. The rate was 76.5% for those with Hispanic surnames versus 74.0% for

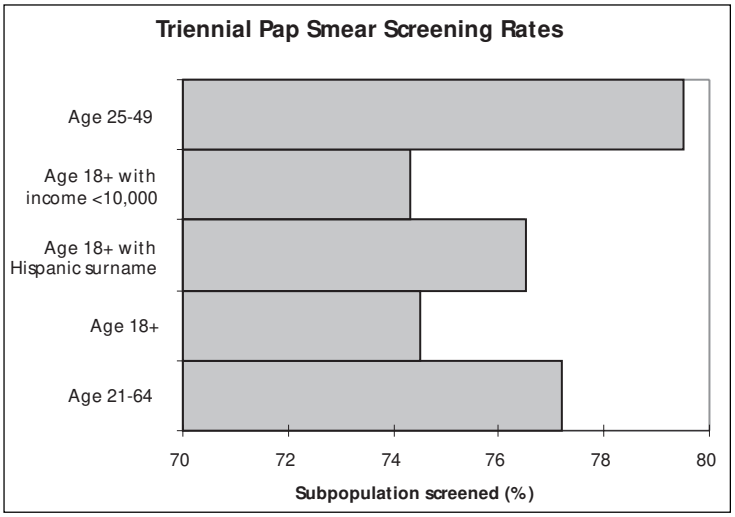

Fig. 1. Triennial Pap smear screening rate by certain sociodemographic characteristics shows having Hispanic vs. other surname significant at $p < 0.001$ for screening.

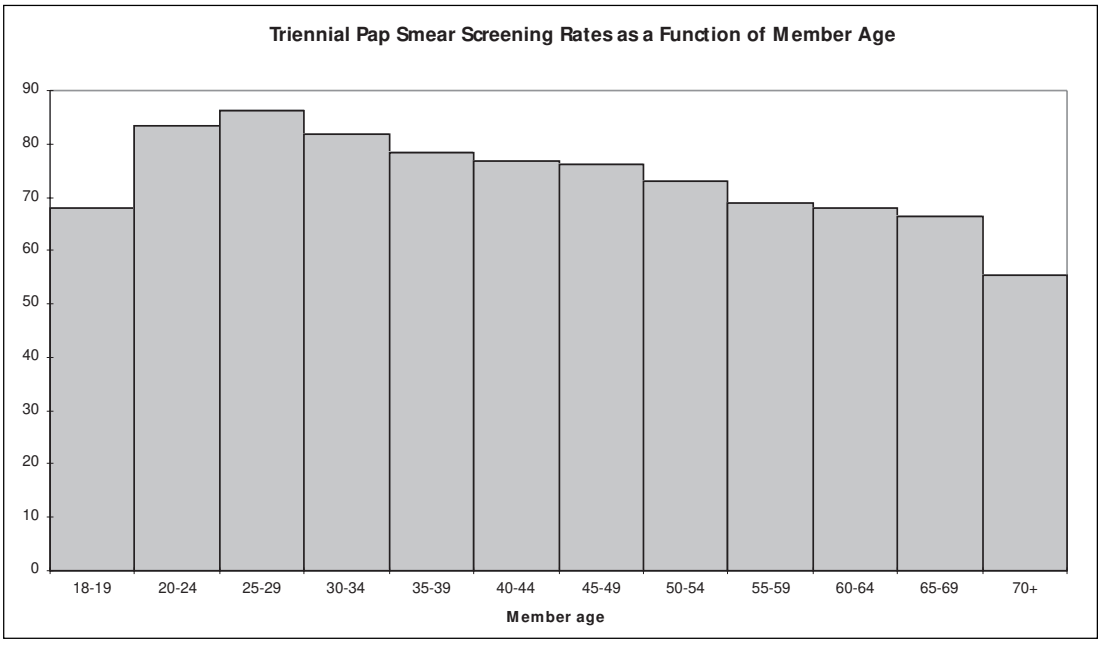

Fig. 2. Triennial Pap smear screening rate by member age shows inverse relation significant at $p < 0.001$ for all but age 18-19 years.

all others combined ($p < 0.001$). Corresponding rates for key subpopulations are shown (Fig. 1). For patients aged 20 to 24 years, screening rates varied inversely by patient age (Fig. 2).

Table 3. Characteristics of health plan members receiving Pap smear within past 3 years

Member characteristic	% receiving Pap smear in past 3 yr	95% CI	p value
Ethnicity:			<0.001
Hispanic surname	76.5	(76.0, 77.0)	
other surname	74.0	(73.7, 74.3)	
Age (yr):			<0.001
18-19	68.6	(67.0, 70.2)	
20-29	85.7	(85.2, 86.2)	
30-39	80.0	(79.5, 80.4)	
40-49	76.5	(76.0, 77.0)	
50-59	71.1	(70.5, 71.7)	
60-69	67.3	(66.6, 68.0)	
70+	55.4	(54.5, 56.3)	
Median income ($):*			<0.001
<20,000	69.2	(68.0, 70.4)	
20,000-39,999	73.0	(72.6, 73.4)	
40,000-59,999	75.7	(75.3, 76.1)	
60,000+	77.5	(76.9, 78.1)	
Out-of-pocket expenditure for Pap smear ($):			<0.001
0	74.7	(74.3, 75.1)	
2-5	73.3	(72.9, 73.7)	
6-10	76.2	(75.4, 77.0)	
11-19	77.6	(76.9, 78.3)	
No. visits to primary care departments:†			<0.001
0	15.4	(14.6, 16.2)	
1	50.8	(49.6, 52.0)	
2-6	74.5	(74.1, 74.9)	
7+	83.3	(83.0, 83.6)	
Member has personal provider?			<0.001
yes	77.1	(76.8, 77.4)	
no	63.6	(63.0, 64.2)	

CI = confidence interval.

* Based on median income reported by 1990 U.S. Census for residents of member's residential block.

† Outpatient visits to family practice, internal medicine, and obstetrics/gynecology departments during the study period.

The relation between Pap smear utilization and member's age and income, out-of-pocket expense, primary care utilization, and whether the member had an assigned primary care provider is presented (Table 3). Family income ($p < 0.001$), number of primary care visits during the 3 year study period ($p < 0.001$), having an assigned personal provider ($p < 0.001$), and having Hispanic surname ($p < 0.001$) were all positively associated with likelihood of having received a Pap smear. Except for members aged 18 to 19 years, age was inversely related to likelihood of having a Pap smear ($p < 0.001$).

The unexpectedly higher screening rates among members with Hispanic surnames was largely attributable to the relative youth of Hispanics as compared with other members. Only 44.2% of Hispanic-surnamed members were aged ≥40 years old compared with 64.0% of other members. After controlling for age, the relationship between ethnicity and screening essentially disappeared. The 95% confidence interval for the relative risk of being screened (1.010, 1.018) favored members who did not have Hispanic surnames.

To our surprise, among members who incurred any copayment expense for Pap smears, those who paid most were most likely to have been screened. Even after controlling for family income, the percentage of members who had been screened was greatest among those who paid most for the procedure ($p < 0.001$).

After controlling for the existence of a personal provider, we also investigated the relation between Pap smear utilization and number of primary care visits. In either case, members who had more visits were more likely to have been screened. However, existence of a personal provider did seem to influence screening behavior at the extremes of the utilization spectrum. Members who had no primary care visits were much more likely to have been screened if they had a personal provider (24.6%) than if they did not (9.7%). Conversely, among members who had >6 primary care visits, members who had no personal provider were more likely to have been screened (91.2%) than those who had a personal provider (82.3%).

Women to whom a personal physician had been assigned were more likely to be screened (76.7%) than women who had no assigned personal physician (70.1%) ($p < 0.001$). Women who had female personal physicians were more likely to be screened (79.4%) than women who had male personal physicians (75.5%) ($p < 0.001$). Women who had family practice personal physicians were more likely to be screened (78.4%) than women with internal medicine personal physicians (74.9%) ($p < .001$). Rates of screening were also higher in women who had younger personal physi-

"Family income, number of primary care visits during the 3 year study period, having an assigned personal provider, and having Hispanic surname were all positively associated with likelihood of having received a Pap smear."

"Women who had female personal physicians were more likely to be screened (79.4%) than women who had male personal physicians (75.5%)."

cians: the screening rate was 79.3% for women whose personal physicians were aged <35 years, 77.4% for women whose personal physicians were aged 35 to 44 years, 75.0% for women whose personal physicians were aged 45 to 54 years, and 73.7% for women whose personal physicians were aged ≥55 years ($p < 0.001$).

Results of logistic regression used to evaluate the unique influences of each factor are presented (Table 4). For women aged >20 years who had an assigned personal physician, multivariate analysis was done using screening rate as the dependent variable; independent variables consisted of patient's age, median income, copayment, Hispanic ethnicity, number of primary care visits during 3 year study period, and personal physician's age, gender, and specialty. In this analysis, women who had a female personal physician specializing in family practice or internal medicine were slightly more likely to be screened (odds ratios of 1.13 and 1.23). No statistically significant effect was seen for provider age or patient's Hispanic ethnicity.

Discussion

Merging existing health plan data files to determine Pap smear screening rates was less time-consuming and more accurate than performing a patient survey or chart review of a randomly selected cohort of our health plan population. Our methodology cannot be used to determine screening rates in most other health care systems, however, because obtaining a comprehensive list of women at risk within the population (i.e., women aged ≥18 years) is difficult, cytologic smears are reported by multiple laboratories, and data concerning provider's gender, age, and specialty are unavailable.

Our study somewhat underestimates cytologic screening because ≥10% of nominally "unscreened" women have had recent Pap smears outside the health plan: a 1993 survey showed that 15,260 members who had no Pap smear done within Kaiser Permanente during the preceding 3 years had received one at non-Kaiser Permanente facilities during that period. The clinically indicated screening rate is underestimated in this study also because some women in the study population had a hysterectomy for reasons other than cervical neoplasia and were advised by their providers not to have vaginal cytologic screening.[20]

The 3 year screening rate (74.5%) found in this study is higher than the annual rate of vaginal or cervical cytologic screening (67%) for women aged 15 to 44 years as reported in the National Survey of Family Growth[9] and is higher than the biannual screening rate (64.8%) for women aged 20 to 79 years as reported in the National Health Interview Survey.[10]

Table 4. Independent relation between health plan member characteristics and receipt of Pap screening

Member characteristic	Odds ratio	95% CI	p value
Ethnicity:			<0.001
Hispanic surname	1.03	(1.01, 1.05)	
other surname	1.00		
Age (yr):			<0.001
18-19	1.00	(67.0, 70.2)	
20-29	2.17	(2.06, 2.28)	
30-39	1.59	(1.51, 1.66)	
40-49	1.21	(1.15, 1.26)	
50-59	0.76	(0.73, 0.80)	
60-69	0.56	(0.53, 0.58)	
70+	0.30	(0.29, 0.32)	
Median income ($):*			<0.001
<20,000	1.00		
20,000-39,999	1.05	(1.03, 1.08)	
40,000-59,999	1.18	(1.15, 1.20)	
60,000+	1.41	(1.37, 1.45)	
Out-of-pocket expenditure for Pap smear ($):			<0.001
0	1.00	(74.3, 75.1)	
2-5	0.98	(0.97, 1.00)	
6-10	1.03	(1.00, 1.06)	
11-19	1.15	(1.16, 1.18)	
Members who have personal provider†*			<0.001
PC visits interaction			
No. visits by members who have personal provider::			
0	1.31	(1.29, 1.33)	
1	5.12		
2-6	18.13		
7+	38.17		
No. visits by members who have no personal provider::			<0.001
0	1.00	(76.8, 77.4)	
1	5.67	(5.42, 5.94)	
2-6	16.10	(15.49, 16.73)	
7+	30.78	(29.70, 31.89)	

PC = primary care.

* Based on median income reported by 1990 U.S. Census for residents of member's residential block.

† Outpatient visits to family practice, internal medicine, and obstetrics/gynecology departments during the study period.

However, the 3 year screening rate is lower than the goal of 85% established by Healthy People 2000: National Health Promotion and Disease Prevention Objectives.[21] Strict comparison of screening rates found in our and prior studies is difficult because of differences in age of the population surveyed, rate defined (annual, biannual, or 3 years), and the methods used (patient survey versus merging existing data files). Notably, the screening rate seen in this trial occurred during a period in which the guideline for cervical and vaginal cytologic screening within Kaiser Permanente Southern California recommended annual Pap smears for all women aged ≥18 years. In 1993, after extensive literature review and discussion, the guidelines for cervical and vaginal cytologic screening were changed such that women who had ≥2 negative cervical or vaginal smears and no history of cervical neoplasia were screened every 3 years until age 65 years and every 5 years thereafter. Women who had hysterectomy for reasons other than cervical neoplasia were advised not to undergo screening. After this study, which defined not only the screened population but also defined the unscreened population, we instituted measures to encourage unscreened members to be screened (Binstock MA, unpublished material). *

This study confirmed the finding of others[9,10,14-16] that elderly women were less likely to be screened for cervical or vaginal neoplasia. This tendency may be appropriate, given that cervical neoplasia is very unlikely to develop in women between ages 50 and 60 years who have participated in vaginal or cervical cytologic screening programs but who have never had evidence of cervical neoplasia.[22,23] Elderly women who have not participated in cytologic screening programs are at risk not only for cervical neoplasia: if cervical neoplasia develops in these women, they are more likely to be diagnosed with invasive cancer than are younger women.[23,24]

Our study confirms that women who have lower median incomes also have lower rates of cervical and vaginal cytologic screening. These results should be interpreted with caution because the median income attributed to any given patient was neither self reported nor necessarily the patient's actual income. Thus "ecological following" of individuals could be introduced. The differences in screening rates based on median income are smaller than seen in other series.[9,10,14,16] The decreased importance of median income as seen in our study may be speculated to reflect a homogenous population which has minimal monetary barriers to receiving health care. Notably, copayment status was not seen to influence screening rates; this suggests that the current size of copayment does not deter screening.

Our conclusions on the impact of Hispanic ethnicity on rates of Pap smear screening may be limited by the study methods used: Hispanic ethnicity was not assigned on the basis of self reporting (which was not available) but rather on surname. This technique is used in other settings and has a very high rate of inclusion for Hispanics—usually ≥70%[25]—but errors of commission and omission are common.

Our study did find lower screening rates among women who had male physicians and older physicians, but the differences were not as striking as those found by Lurie et al.[18] In that series, even after controlling for differences in patient age and physician age, women were about twice as likely to have Pap smears if they had female physicians specializing in internal medicine or family practice. In that same study, women treated by obstetrician/gynecologists had different cytologic screening rates only when their personal physicians were aged 38 to 42 years. The reason for physician gender having less effect in our study than in the study by Lurie et al[18] is not clear, inasmuch as both studies evaluated populations within health maintenance groups and corrected for physician age and patient age. ❖

"Elderly women who have not participated in cytologic screening programs are at risk not only for cervical neoplasia: if cervical neoplasia develops in these women, they are more likely to be diagnosed with invasive cancer than are younger women."[23,24]

Acknowledgment

Leslie Whitsett provided manuscript preparation assistance.

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"Bandon Beach, Oregon" by Stu Levy, MD, a Family Practice physician for NWP, PC.

STU LEVY, MD, a Family Practice physician for Northwest Permanente, PC, studied photography with Ansel Adams. Stu has taught many photography workshops and has had over 20 one-person shows of his work. His photographs are in several major collections, including the Portland Art Museum, the Portland Visual Chronicle, and the Center for Creative Photography in Tucson, Arizona.

By David Clarke, MD

An Approach to Severe or Persistent Functional Symptoms

Functional symptoms which are severe, persistent or both are a common and often frustrating clinical problem in adults. Recent literature has documented a frequent association of these symptoms with a history of abuse in childhood or other source of chronic emotional stress. Based on the author's experience in an office-based practice, this article describes a practical approach to evaluating and treating these patients and reviews some typical personality traits of adult survivors of child abuse.

Introduction

Functional symptoms which are either severe, persistent or both are a common clinical problem in adults. These complaints are often seen in patients suffering from chronic emotional stress. For example, recent reports have described an association between functional symptoms in adults and a history of abuse when they were children.[1,2,3,4,5] An approach to the diagnosis and treatment of functionally ill patients will be described.

Common Characteristics

The ideas presented are intended for practical application in a primary care or referral setting. They were developed by the author based on literature review, collaboration with several mental health professionals and detailed interviews with well over 1000 patients (since 1983) referred to a gastroenterology practice. These patients shared three general characteristics. First, no organic etiology for their symptoms was identified after diagnostic evaluation. Second, there was a history of chronic emotional stress and frequently a history of events in childhood that, as a common denominator, had a negative impact on the patient's self-esteem. This may have included physical, sexual or verbal abuse, physical or emotional neglect, parental abuse of drugs or alcohol or recurring violence in the home. Third, these patients achieved resolution of symptoms with counseling, support groups, classes or books directed at the source of chronic stress or childhood issues.

Case 1 illustrates many typical features of this group.

Case 1

A 36-year-old white female was referred from a University Gastroenterology department with a two year history of having bowel movements only once every two to six weeks. This habit persisted despite daily ingestion of approximately double the usual dose of milk of magnesia, bisacodyl, docusate and fiber supplements. An extensive evaluation had been entirely normal. She denied any emotional stress but was then asked about stress during childhood. She gave a history of penile-vaginal intercourse with her father on a weekly basis from age 4 to age 11. Asked again about stressful events at the time of onset of her illness she reported that the opposite had occurred. Just before her symptoms began she had quit her job as a part-time bank teller because of harassment (non-sexual) from her supervisor. She was quite happy at her current bank and was also happily married, had two healthy children and was financially secure. The patient was referred for counseling for the sexual abuse. Her bowel habits returned to normal in about two months.

Diagnosis

The diagnostic evaluation of these patients depends on the nature and severity of their symptoms and will vary by individual. Contrary to common practice and as recommended by Barbour,[6] it can be very helpful to include emotional stress in your earliest discussions of possible etiologies. When clinicians point out that emotional stress is capable of causing symptoms that are just as 'real' as symptoms caused by, say, tumors or inflammation, patients will appreciate your thoroughness. This approach enables the evaluation for sources of stress to proceed concurrently with the work-up for an organic etiology, possibly over several visits.

Begin by ruling out significant current sources of emotional stress. These include problems within the family, domestic violence, problems at work, chronically insufficient personal time, and any source of substantial anxiety. Occasionally a major negative life event will be found to have coincided with the onset of symptoms. The next step is inquiry about vegetative symptoms of depression such as early morning awakening or other sleep disruption, persistent fatigue, change in appetite, spontaneous tearfulness, anhedonia and suicidal ideation.

Follow this by inquiring about stress in childhood. It is diagnostically and therapeutically helpful to elicit as detailed a history of childhood stress as time and the patient's comfort level will allow. Non-threatening questions such as "Were you under stress as a child?", "Can you tell me more about what went on?", "How often did that happen?" are most useful. It is important to elicit a history of any childhood stress that produces a lowered self-esteem in the child. Significant functional symptoms can occur in adults in the absence of what is commonly considered abusive treatment if childhood self-esteem was substantially and adversely impacted. Cases 2 and 3 are examples.

"Contrary to common practice and as recommended by Barbour,[6] it can be very helpful to include emotional stress in the clinician's earliest discussions of possible causes of their illness."

"Significant functional symptoms can occur in adults in the absence of what is commonly considered abusive treatment if childhood self-esteem was substantially and adversely affected."

DAVID CLARKE, MD, graduated from the University of Connecticut School of Medicine in 1979. His postgraduate training was at Harbor/UCLA Medical Center. He has practiced Gastroenterology for Northwest Permanente, PC since 1984.

"It is common for functionl symptoms to appear soon after the start of the patient's first relationship with a supportive partner."

Case 2

A 31-year-old white female was admitted for diarrhea and orthostatic vital sign changes. She reported that during the 18 months prior to admission she experienced 5-10 non-bloody bowel movements per day on 3-4 days per week associated with a documented 81 lb weight loss to 117 lb. On the remaining 3-4 days per week she was asymptomatic. An extensive evaluation did not determine an etiology. The patient denied significant current stress and any physical or sexual abuse in childhood or later. She had some symptoms of depression. She also recalled that it was her father's habit, on a daily basis from her earliest years, to spend most of the evening meal discussing his children's flaws and recommending methods for improving. This practice continued less regularly during her adult years. The patient recalled "never being able to please him." After discussion of these issues she felt a great sense of relief, became asymptomatic for the next four months (but was then lost to follow-up) and regained 15 lb in three weeks.

Case 3

A 54-year-old white female was admitted for uncontrollable nausea, vomiting and vertigo. She reported a 15 year history of episodic attacks of these symptoms 6-10 times annually. She had been evaluated by "every GI, Neurologist and ENT" at a University Hospital and by many other physicians in her community as well. There was no history of significant current stress, depression or physical or sexual abuse in childhood or later. However she did recall growing up "like Cinderella but without the prince" with very poor treatment by her mother after the mother divorced and remarried when she was age two. She reported as well that driving through a particular town (25 miles from her home) "always" led to one of her attacks. Further questioning revealed that the only occasion that led her to pass through that town was while on her way to visit her mother. Driving the same distance in the opposite direction never produced an attack. After this revelation she became and remained asymptomatic.

Typical Findings in Adult Survivors of Child Abuse

The amount of time you devote to a patient's childhood stress history will depend on your index of suspicion regarding its relevance. It has been my experience that several findings in the history of the patient's teen/adult years are characteristic of adult survivors of child abuse. The more of these that you identify in reviewing records or in taking the history, the higher will be your index of suspicion that you are treating a child abuse survivor. These include a history of:

1. Early adult personal relationships in which the patient was treated poorly.
2. Prior negative medical evaluations.
3. Prior mental health treatment.
4. Suicide attempt(s) or self-mutilation.
5. Abuse of drugs and/or alcohol.
6. Smoking, particularly those who do not wish to quit.
7. Anorexia nervosa or bulimia.
8. Concerns about ability to appropriately discipline their children.
9. Feeling that the patient's life is better than ever but that something could go terribly wrong at any moment.
10. Belief that they are not as capable as their peers believe them to be.
11. Perfectionism.
12. Caring for problems of others so much they neglect their own problems.
13. Outbursts of anger that seem to have insufficient cause.
14. A major positive life event just prior to the onset of symptoms.

When the history is positive for significant childhood emotional stress in a patient with a negative medical evaluation it is reasonable to recommend that the childhood issues be addressed as an adjunct to planned medical therapy. This process is described in the next section.

Treatment

Begin with a simplified explanation of how symptoms could be linked to stress. Despite our poor understanding of the physiologic basis of these symptoms patients find this very helpful. A typical discussion that patients across the spectrum of educational backgrounds can comprehend is as follows:

"There is an area in your brain that manages stress. When it has too much to deal with it sends out nerve impulses to relieve the overload. These nerve impulses go to various parts of your body and cause symptoms. The best way to confirm that this is happening is to reduce the stress and then see if your symptoms improve."

Patients who have symptoms of depression appreciate the following addendum:

"If the stress manager in your brain is working too hard it may use too much of its chemical supply. This can cause trouble sleeping, persistent fatigue, change in appetite, loss of interest in activities you enjoy and even depression and suicidal thoughts. There are

medications available that are neither addictive nor tranquilizing that can restore those chemicals to the levels that nature intended. Using these medications is therefore much like a diabetic using insulin."

Supported by this information my patients have been able to focus on reducing sources of stress. When childhood issues are present, useful treatment resources developed for "Adult Children of Dysfunctional Families" are now widely available. They include self-help books,[7] support groups (through Al-Anon or the patient's church), educational classes and mental health professionals with specialized interest and training. A knowledgeable social worker can be invaluable in triaging patients among these resources.

In my experience, the combination of the discussion described above, symptomatic treatment, antidepressant medication where indicated and addressing childhood issues, if any, generally produces a definite improvement in symptoms at the initial follow-up visit. Complete resolution of symptoms generally takes a few months to a few years. Often there are relapses and remissions superimposed on steady general improvement.

A very small number of patients may acknowledge the importance of the childhood issues but be psychologically incapable of addressing them immediately. Even these patients generally experience some alleviation of their symptoms after discussion. Other patients will hear and appreciate your recommendations but state that they do not believe their admittedly significant childhood issues are a factor in their illness. It has been my experience that in most of these cases the patient's perception is correct.

Common Themes

Detailed interviews with over 1000 adult survivors of child abuse who presented with functional symptoms revealed that they often share certain personality characteristics. Familiarity with these is a useful background for clinicians who work with them.

As children many of these patients responded to the abuse or other trauma with hard work in school and at home. They were perpetually "on their best behavior." Many took on parental roles with respect to cooking, cleaning and other household duties. As adults these qualities made them ideal employees, colleagues and friends though often they would take on so much that they had little time for themselves.

As young adults, low self-esteem led them away from mutually supportive personal relationships and toward individuals whose treatment of them was more consistent with what they had experienced as children. As a result, a history of marriage to an abusive and/or alcoholic spouse or spouses is common.

As their hard work results in worldly success, however, self-esteem begins to improve which often leads to a positive, stable long-term personal relationship. Ironically this development is often very stressful because it challenges long-held views of their low value and creates anxiety about whether such a relationship can last. It is common for functional symptoms to appear soon after the start of the patient's first relationship with a supportive partner. In a variation on this theme, Case 1's symptoms began when she developed enough self-esteem to end the only negative relationship in her life, the one with her supervisor.

Mistreated children typically suspect that their abuse is partially deserved. But as self-esteem strengthens in the adult years their early experiences will increasingly be viewed as inappropriate. Anger, often unexpressed, about this treatment becomes more difficult to ignore. When a parent or other loved one was the perpetrator, the anger is often suppressed. Surprisingly to many, this suppression is commonly due to a desire for a healthy, positive relationship with that individual. These antagonistic emotions are difficult to resolve without expert assistance. The next case illustrates.

Case 4

An 83-year-old white female had a 25 year history of abdominal cramps, bloating and alternating constipation and diarrhea. An extensive evaluation over the years had been negative. From her earliest memories she recalled approximately weekly beatings with strap, baseball bat, or two-by-four by her father. She married at age 15 in order to leave this situation and was unhappily married for the next 63 years until her husband died. When her father developed prostate cancer she moved out of state (late in her sixth decade) and cared for him in his home for 18 months until he died. She and her father never discussed the physical abuse. The patient recalled hoping that her father would express affection for her and/or remorse for his abuse of her but this did not occur. Her gastrointestinal symptoms began soon after he died and she had returned home. With counseling her symptoms improved significantly although they did not completely resolve.

These common themes should be kept in mind when listening to patients describe themselves and their lives. The ability to recognize, understand, and respond to a survivor of child abuse will improve significantly.

Conclusion

This approach has favorably altered the course of patients who had previously frustrated the diagnostic and/or therapeutic efforts of one or more clini-

"A very small number of patients may acknowledge the importance of the childhood issues but be psychologically incapable of addressing them immediately. Even these patients generally experience some alleviation of symptoms after discussion."

cians. However, the ideas expressed here are based on the experience of one individual with a selected group of patients. They have not been tested against a control group. No firm conclusion is possible regarding the success of the approach in other settings. Nevertheless the concepts presented may aid others in developing their expertise with this very treatable group of patients. ❖

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"You must give birth to your images. They are the future waiting to be born."
Rainier Maria Rilke, Letters To A Young Poet.

By Vincent J. Felitti, MD

"Caring For Patients," by Allen Barbour, MD

A Book Review

"Caring For Patients" by Stanford physician Allen Barbour is an important medical book which addresses issues critical to routine medical practice. An uncommon treatise like this could shape the future of one's medical practice as well as the economics of medical care.

Barbour points out that experienced physicians have been trained to diagnose and treat organic disease although most patients seen in any given medical practice have illness caused by personal distress; many patients who come for help are not well accommodated by the biomedical system of diagnosis and treatment. Many diagnoses are deferred indefinitely, and evaluations are commonly extended and futile. A major component of the soaring costs of modern medical care, "high-tech" diagnostic procedures are often ordered when seeking a disease-based explanation for what are really unrecognized functional disorders. In the organ-based specialties, physicians rule out conditions instead of ruling them in, leading to both dilution of responsibility and collusive physician anonymity. The author recalls Eugene Stead's famous comment: "What this patient needs is a Doctor."

Barbour considers several common functional disorders worth listing because they are frequently misrecognized and misrepresented: anxiety, depression, fatigue, weakness, obesity, anorexia, impotence or anhedonia, disturbed sleep, headache, backache, constipation, diarrhea, indigestion, bloating, abdominal pain, musculoskeletal chest pain, and chronic pelvic pain. Although 87% of all emotionally based illnesses manifest as "medical" symptoms, functional symptoms are evaluated for organic disease as though the opposite were true.

Emotional expressions are inherently physical: they have evolved to unify mind and body in a common purpose, and great overlap can be seen between functional and organic expression. In organic disease, biologic determinants predominate; however, long-term psychosocial aspects of human life are the factors which actually determine morbidity and mortality. Indeed, much disease results from attempts to control the forces which initially led to illness. Thus, for example, endocarditis may result from intravenously administered drugs used to feel better by someone who feels profoundly bad. *That* is the core problem. Barbour quotes Stead's comment: "If one doesn't know what is actually going on, then one doesn't really know how to handle it."

Commonly, each possible organic disease is ruled out before the physician considers functional disorder as the diagnosis. This practice is improper and destructive: both varieties of diagnosis should be considered from the outset. Psychosomatic disorders can be detected only as a result of positive diagnosis and not by default. Personal situations which correlate with increased morbidity and mortality from physical disease include degree of parental deprivation, quality of childhood experience, and quality of social support. The author references a 7000 person study in which middle-aged men with the fewest interpersonal connections had three times the mortality rate of a matching group with the most interpersonal connections.

Feelings are either expressed or suppressed; they cannot be obliterated through containment. If suppressed, they emerge either as physical symptoms or as unfocused emotional expression such as anxiety, depression, or other psychiatric syndromes. Because most emotionally distressed persons are only dimly aware of the source of their distress or are overwhelmed by it, their tension mounts until physical symptoms result or until anxiety or depression increase to a level triggering a psychiatric diagnosis. Indeed, unconscious suppression of emotions and failure to understand their link to symptoms is the rule in medicine: by focusing on symptoms instead of their underlying personal problems, people define themselves as sick and thus seek relief from doctors. Complaints about symptoms trigger the medical model.

In general, pain is usually and incorrectly thought to be primarily caused by organic disease. Barbour studied 400 consecutive Stanford University Medical Center outpatients and found that in 174 of them, pain was the dominant symptom. However, when these 174 patients were thoroughly evaluated, the pain was found to be due to psychophysiologic reaction in 28%, somatoform disorder in 39%, or organic disease in 33%.

As an example of the diverse origin of pain, the three most common causes of recurrent anterior chest pain are cardiac, esophageal, and psychogenic. Unfortunately, exclusion of a cardiac cause typically discourages further diagnostic or therapeutic steps from being taken. This practice is unsatisfactory from the patient's viewpoint because lack of diagnosis equates with lack of knowledge: if the doctor doesn't know what *is* going on (i.e., doesn't confidently apply a diagnostic term), why should the patient trust the doctor's opinion of what *is not* going on? This failure to resolve the problem is expensive, partly because it virtually assures future visits to find an answer. In a large study of patients in a headache clinic, for example, the dominant concern for 77% was explana-

" ... experienced physicians have been trained to diagnose and treat organic disease although most patients seen in any given medical practice have illness caused by personal distress...."

"Complaints about symptoms trigger the medical model."

VINCENT J. FELITTI, MD, has been with the Southern California Permanente Medical Group since its opening in the late 1960s. Educated at Dartmouth College and Johns Hopkins, he practiced many years both as a traditional internist and an infectious disease consultant and was an elected Director of SCPMG for 10 years.

tion of their illness, not pain relief. Barbour elsewhere describes chronic backache as "an illness in search of a disease." In this regard, Barbour points out that CAT scans showed herniated nucleus pulposus in 10% of asymptomatic volunteers aged <40 years; 27% of asymptomatic volunteers aged ≥40 years, had a herniation. Chapter 13 includes interesting, scholarly, well-referenced discussions of fibromyalgia, chronic fatigue syndrome, pelvic pain, irritable bowel syndrome, chronic abdominal pain, and various types of headache.

"Because the biologic focus is currently so strong, depression has come to be viewed as a disease instead of a response to problems of the human condition. According to Barbour, the biology of depression is the result—not the cause—of feeling depressed."

Because the biologic focus is currently so strong, depression has come to be viewed as a disease instead of a response to problems of the human condition. According to Barbour, the biology of depression is the result—not the cause—of feeling depressed. Genetic factors in major depression act not by initiating, but by accentuating intensity of the depressive response. Tricyclic antidepressants are not particularly specific: their effects occur at both ends of the anxiety-depression spectrum. Of little use in mild depression, they are often effective for reversing the biologic dysfunction of more advanced depression. In situations where antidepressants are not effective or are refused, physicians must contribute more time, energy, and personal commitment than most are willing to give. Sufficient time does exist, given the large amounts of time typically ultimately spent prescribing for symptoms one at a time instead of exploring central issues. (This phenomenon is easily observed from patient records.)

Barbour points out that in personal illness, outcome is determined by the physician's concept of care, i.e., whether care is limited to "ruling out" a particular condition or whether it expresses a more general concern for clinical judgment, helping, and healing. Unfortunately, efforts to understand the patient as a person are most often relegated to psychiatry, a field which itself seems to have abdicated that goal. This problem is compounded by patients who do not consider personal growth to be their responsibility.

Ultimately, how illness is explained to a patient is a pivotal issue determining subsequent events. In psychosomatic illness, it is always helpful to explain that the illness is a common response to distress and that the illness fortunately does not result from disease. Naming the illness is critical; an illness without a named diagnosis will not attract an adequate response from the patient. A useful explanation that the severity of stress-induced illness is often greater in irritable bowel syndrome than in cancer, that the pain of fibromyalgia typically is worse than in rheumatoid arthritis. Saying only that "nothing was found so it must be stress-related" is the mark of the therapeutically destitute and is doomed to failure because it fails to fully acknowledge that something is wrong. The crowning achievement for any clinician is to make the correct diagnosis and, with the patient, to reach an understanding of the underlying problem.

In selecting and abstracting some of Allen Barbour's words and ideas, I hope that I have done justice to *"Caring For Patients."* The entire book is highly readable, eruditely written, and meticulously referenced. This uncommon triad of qualities, combined with the author's extensive clinical experience, creates a work of great merit such as comes along once in a decade or longer. Although Dr. Barbour died just before its publication, his book carries the contemporary banner for ideas developed by George Engel, Richard Magraw, Michael Balint, and Walter Alvarez in their important, earlier books about the nature of a physician's work. ❖

"Life is full of insurmountable opportunities."
Pogo

The Lighter Side of Medicine

I think acronyms are far superior to individual's names when it comes to medical conditions. WE all know what CHF, AODM, PUD, OA, and things like that are. But how many of us know what Millard-Gubler syndrome, or Schamberg's disease are? In fact, I have started an organization devoted to further the cause of acronyms in medicine. I call it "Doctors Instituting Praise-Worthy Acronym Deployment Services." Too bad that's such a mouthful. I wonder what we could call ourselves for short?

(Contributed by Jonathan Hall, MD, The Permanente Medical Group, Inc)

Normally I like the color maroon. But not when I'm on call.

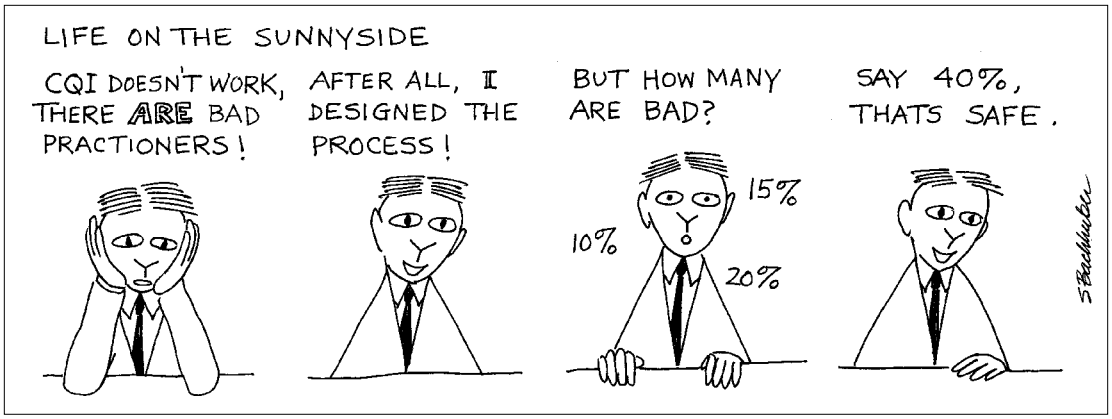
(Contributed by Jonathan Hall, MD, The Permanente Medical Group, Inc)

When you think about all of the medical interventions available to different parts of the body, why is it that the prostate gland gets so much attention? Just look at the ways medicine can treat the prostate:

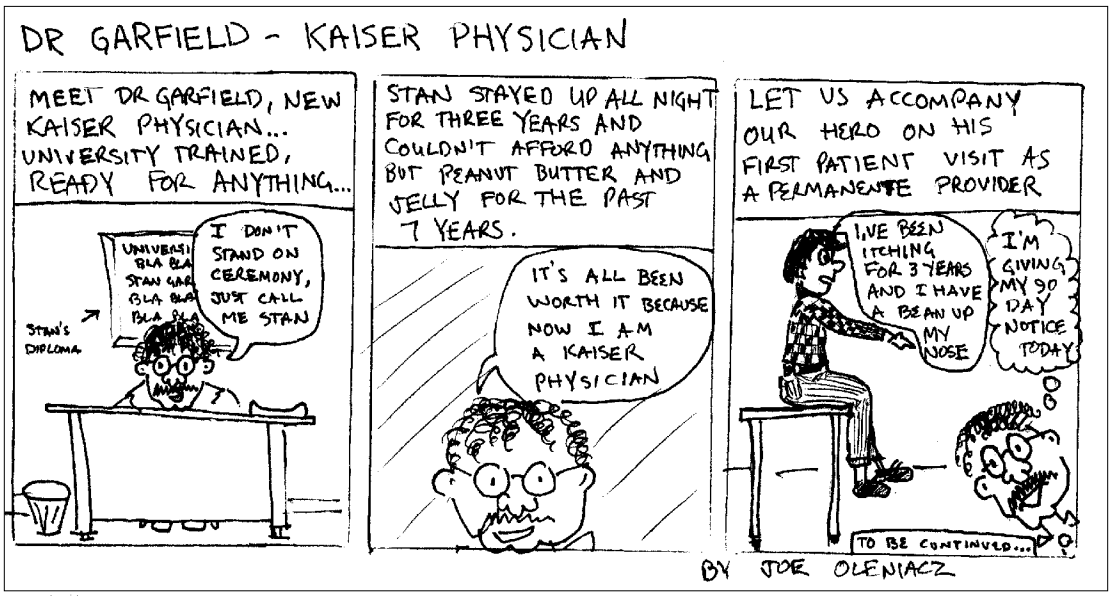
1. Brachytherapy (implant radioactive rice-sized seeds)
2. Cryoprostatectomy (freeze it)
3. Lasers (used in various procedures, including the vaportrode and charmingly named TULIP)
4. TUNA (transurethral needle ablation)
5. Microwave
6. Photon beam therapy
7. Proton beam therapy
8. Conformal 3-D radiation therapy
9. Mix external radiation and seeds
10. Of course, you can always use a knife, too.

(Contributed by Nancy Collins, RN, Medical Technology Coordinator, The Permanente Medical Group)

Do you have a humorous medical joke, anecdote or cartoon? Refer to the table of contents pages to find out how to submit it to us.



By Stephen Bachhuber, MD, an Anesthesiologist for Northwest Permanente, PC.



By Joe Oleniacz, MD, a Pediatrician for The Carolina Permanente Medical Group, PA .

By Robert McDuffie, MD

Scheduling Prenatal Care for Low-Risk Women

More than half the births in the U.S. annually are to women at low risk for complications of pregnancy. Prenatal care for these women is therefore a major item on the U.S. health care agenda. Recommendations of two national committees on the subject are reviewed as well as results of three randomized, controlled trials which compared these recommendations with traditional prenatal care. Both the recommendations and results of the trials support adopting a new obstetric visit schedule for pregnant women who are at low risk for adverse perinatal outcomes.

"Prenatal care is the foundation of all health care: the medical circumstances of birth predict not only immediate neonatal outcome but also long-term outcome, including intelligence quotient and school performance.[1]"

"What has never been clear is how much prenatal care low-risk women need to achieve a good pregnancy outcome."

Introduction

Prenatal care is the foundation of all health care: the medical circumstances of birth predict not only immediate neonatal outcome but also long-term outcome, including intelligence quotient and school performance.[1] Many observational studies support the concept that prenatal care improves pregnancy outcome.[2-10] Of the 4 million infants born in the United States each year, more than half are born to women at low risk for adverse pregnancy outcome. Thus, prenatal care for these women is a major item on the U.S. health care agenda. What has never been clear is how much prenatal care low-risk women need to achieve a good pregnancy outcome. This article reviews 1) recommendations made by two national committees concerning prenatal care for low-risk women; and 2) results of three randomized, controlled trials that compared these recommendations and traditional care. Results of the trials support adopting a new visit schedule for low-risk pregnant women.

Recommendations of Two National Committees

This question was examined by both the Royal College of Obstetrics and Gynaecology (Great Britain) and the Expert Panel on the Content of Prenatal Care (United States). In 1982, the Royal College advocated a schedule of fewer antenatal visits than traditionally provided for British women at low risk for adverse pregnancy outcome.[11] In 1989, the Expert Panel on the Content of Prenatal Care made a similar recommendation.[12] Composed of professionals from many sectors of the U.S. health care system, this multidisciplinary group reviewed available literature and determined that traditional visits for health promotion and risk assessment could be combined to provide 8 to 10 visits for low-risk women instead of the traditional schedule (13 or 14 visits). The new schedule eliminated the traditional visit at 20 weeks' gestation and included longer intervals between visits during the third trimester.

Clinical Trials

Since 1995, three published randomized, controlled trials[13-15] have advocated this visit schedule for low-risk women.

Kaiser Permanente Clinical Studies

In one study, Binstock and Wolde-Tsadik[13] randomly assigned 549 low-risk women at the Kaiser Permanente Medical Center in Woodland Hills, California, to either a traditional schedule of 13 visits or a study schedule of 8 visits. Women were considered at "low" risk for adverse pregnancy outcome if they were at <18 weeks' gestation and had no prior obstetric problems such as preterm birth and no medical problems such as chronic hypertension or diabetes. Each visit was structured to provide "focused content" appropriate for gestational age. Perinatal outcome, medical utilization, and patient satisfaction were measured. No differences in rates of low birthweight, preterm delivery, or cesarean delivery were seen. The control group had 11.3 visits per pregnancy; the study group had 8.2 visits ($p < .001$). The authors found no differences in administration of recommended prenatal tests such as maternal serum α-fetoprotein or glucose screening or in duration of maternal or neonatal hospital stay. In addition, results of postpartum satisfaction questionnaires showed that patients were equally satisfied with many aspects of prenatal care. Patients in the study group were more satisfied with number of visits scheduled, number of providers seen, pregnancy education received, and appointments arranged than the control group. Of the 549 women who entered the study, only 401 women were included in the final analysis. The authors noted study limitations, including method of randomization and exclusion of women in whom high risk factors developed. Nonetheless, this study showed the feasibility of adopting this new schedule in a managed care setting and created a foundation for larger trials.

In a trial conducted in the Colorado Division of Kaiser Permanente, McDuffie et al[15] randomly assigned 2764 pregnant women who were at low risk for adverse perinatal outcome to a control schedule of 14 visits or to an experimental schedule of 9 visits. This study included women aged 18 to 39 years whose prenatal care was initiated before 13 completed weeks' gestation. The authors excluded women who had a previous obstetric condition such as preterm birth, delivery of a neonate small for gestational age, current obstetric condition such as multiple gestations, or a past or current medical illness such as diabetes, hypertension, or renal disease. The experimental schedule included visits at

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8, 12, 16, 24, 28, 32, 36, 38, and 40 weeks' gestation. Overall, the control group had 12.9 visits to providers and the experimental group had 10.3 visits ($p < .0001$). No differences were seen between the two groups with regard to clinically relevant maternal and neonatal outcomes, including rate of preterm delivery (i.e., delivery at <37 weeks' gestation), preeclampsia, cesarean delivery, low birthweight or very low birthweight, and stillbirth. In addition, results of a postpartum questionnaire showed no differences between groups in measures of quality of prenatal care, education, or written educational materials. Significantly more patients (89.2%) in the experimental group than in the control group (82.8%) said they believed that their number of prenatal visits was just right ($p = .002$). In this study, both perinatal outcome and patient satisfaction were maintained when low-risk women had fewer scheduled prenatal visits than traditionally provided.

British Clinical Study

In Great Britain, Sikorski et al[14] compared clinical and psychosocial effectiveness of a traditional schedule (13 antenatal visits) with that of a new schedule (6 or 7 antenatal visits). After assessing risk, the authors randomly assigned 2794 low-risk women to one of the two groups. As in the other trials, the authors excluded women who had a history of obstetric problems or medical illnesses and those who had received only late care (after 22 weeks' gestation). In addition, they excluded women at the extremes of reproductive age (<16 years or >40 years), those weighing <41-47 kg (depending on ethnic group), and those weighing >100 kg. General practitioners and midwives shared activities during scheduled visits, a practice similar to that described by Binstock and Wolde-Tsadik (in whose study obstetricians and either midwives or nurse practitioners provided care). Overall, the group receiving traditional care visited 10.8 times per pregnancy, whereas the group assigned to the new antenatal visit schedule visited 8.6 times per pregnancy ($p < .0001$). Women assigned to the new visit schedule also had fewer day (outpatient) admissions and ultrasonographic examinations and were less often suspected of carrying fetuses small for gestational age. The authors reported no differences in any measure of clinical outcome, including rate of cesarean delivery (15.4% for women receiving traditional care vs 13.9% for women assigned to the new visit schedule). The authors conducted an extensive questionnaire on psychosocial variables. Significantly more women in the traditional schedule group (83.0%) than in the new schedule group (78.7%) reported that their providers listened to them during the antenatal visits ($p < .05$); more women (83.8%) in the traditional schedule group than in the new schedule group (67.5%) were satisfied with the visit frequency ($p < .05$); and on a scale of 0 to 5, where 5 represented maximum worry, women in the traditional schedule group were less worried about the health status of the baby (score = 1.5) than were women in the new schedule group (score = 1.7). However, when asked whether they would choose the same schedule in a future pregnancy, more women in the new schedule group (70.3%) than in the traditional schedule group (62.6%) said they would choose the same schedule again ($p < .05$). Because patients were not blinded to the schedules they received, biases for some psychosocial variables may have existed. Overall, the study supported the clinical effectiveness of reducing number of prenatal visits for women who are at low risk for adverse perinatal outcome.

Comparisons and Conclusions

Thus, during the past two years, three prospective clinical trials have indicated that reducing number of prenatal care visits does not result in any clinically important differences in perinatal outcome. These studies (except the British trial) also show that patients are pleased with the care they receive. Because most women either work or rear children, antenatal visits can seem like unnecessary interruptions in the day. Although cost savings are made possible by reducing number of prenatal visits, analyses should include indirect medical costs to patients during health care visits (e.g., costs of absence from work, travel time, and arranging child care).

The results of these three studies underscore the need to answer the question, "If number of visits does not matter, then what does?" First, each of these studies identified a "low-risk" population, and no risk assessment system is perfect. Risk assessment must also be continued so that if any new risk factors such as hypertension or preterm labor develop, the visit schedule and care plan can be modified as needed. Second, because two of the three studies were conducted in a group-model health maintenance organization (HMO) and the third was conducted within a national health care setting (in England), access to health care—an important factor—was available. Third, each of these systems had organized systems for delivering prenatal care, and the content of prenatal care is important. Individual elements of content may differ between clinics and even between providers (e.g., routine ultrasonographic examinations), but the overall content in the three studies appears to have been similar.

"Thus, during the past two years, three prospective clinical trials have indicated that reducing number of prenatal care visits does not result in any clinically important differences in perinatal outcome."

Conclusion

The medical evidence from these randomized, controlled trials supports adoption of a reduced visit schedule for pregnant women who are at low risk for adverse perinatal outcome. This suggestion is directly applicable to patients in group-model settings such as Kaiser Permanente and may be generalized to >2 million low-risk women annually who deliver in the United States. As implemented, this system should include risk assessment (to assure proper selection of patients) and should incorporate into the schedule the details of visit timing and content. Nationwide implementation of this system would standardize and coordinate prenatal care, maintain good pregnancy outcome, and reduce both direct and indirect medical costs for low-risk women. Further work will be required to identify elements of prenatal care which are responsible for good pregnancy outcome. Understanding these factors will lead to improvement of both prenatal care and pregnancy outcome. ❖

"The medical evidence from these randomized, controlled trials supports adoption of a reduced visit schedule for pregnant women who are at low risk for adverse perinatal outcome."

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Intuition

"The capacity for making intuitive decisions is a basic ingredient of creativity. Intuition means relinquishing control of the thinking mind and trusting the vision of the unconscious. Because it can't be quantified or rationally justified, it is often opposed in the workplace. But it has the ring of truth, because it is grounded in the ability of the unconscious to organize information into unanticipated new ideas. Intuition is what you add to the information you collect. If you understand that, you see you can never collect total information. You have to add your feelings, your gut reaction, to make the right decision. In that sense, there is no answer that's right for everybody—just what's right for you. That's using intuition in the right way.

Jan Carlzon, The Creative Spirit, Penguin Books, 1992.

By Cecil C. Cutting, MD
Thomas McDonald, MD

Perspective—Kaiser Permanente Medicine 50 Years Ago

"Omnia mutantur, nihil interit" (all things change, nothing perishes). Ovid, Metamorphoses

Most Kaiser Permanente (KP) physicians of today had not yet been born during the World War II years, when our organization was forming. Therefore, most are probably unaware that a quarterly publication, the *Permanente Foundation Medical Bulletin*, existed for more than 10 years starting in 1943. Considering the small size of our organization at the time, this represents a considerable achievement. The *Bulletin* was decidedly clinical, with Review Articles, Clinical Series, and Case Reports dominating the pages. Dr. Morris Collen was the publication's editor and driving force. From recent conversation with Dr. Collen, it seemed evident to me that the *Bulletin* served important functions of boosting our organization's self-esteem and the respect we received from the general medical community.

I enjoyed perusing the *Bulletin*, not only because of its obvious historical interest but because some things had apparently changed little during the past 50 years. I thought it worthwhile to connect *Journal* readers with past KP authors, many of whom played major roles in establishing our organization. To this end, we conceived the idea of republishing some noteworthy *Bulletin* articles, adding brief commentaries by currently practicing physicians as appropriate. In this issue we present the lead *Bulletin* article from Vol. 1, No. 1 (published in July 1943). Written by one of our pioneering physicians, Cecil C. Cutting, the article is titled, *"The Treatment of Wounds, with Remarks on the Local Use of Sulfonamides"* and is followed by a brief commentary by Thomas McDonald. *—Arthur Klatsky, MD, Editor*

Attachment: Permanente Foundation Med Bull 1943 (July);1(1):4-9.

The Treatment of Wounds with Remarks on the Local Use of the Sulfonamides

Cecil C. Cutting, MD

IN ANIMAL TISSUES there are many factors which influence the process of wound repair. To enumerate, there are local factors which include: (1) the amount of damaged tissue in the wound, (2) the adequacy of the vascular supply to the wound edges, (3) the amount and character of the exudate in the wound space, (4) the approximation of the wound surfaces, (5) the presence of foreign bodies within the wound, (6) the character and extent of infection.

To attain wound healing one must respect these factors and attempt to obtain a wound with the least possible amount of damaged tissue in it, an adequate blood and nutritional supply to the wound edge, hemostasis, approximation of all portions of the wound surfaces, minimal foreign reaction, and freedom from infection. Rough and excessive handling adds to trauma, strangulation and excessive tension of tissues decreases their blood and nutritional supply.

Adequate rest to the part must be provided. Imperfect suturing, inadequate control of the activity of the patient's straining and coughing, as well as allowing too early function or dependency of an extremity may delay wound healing.

There are systemic factors which exert influences of equal importance. We know that the fluid and protein levels in the blood and tissues and the adequacy of vitamin C are important. General toxicity retards tissue repair as do poor general circulatory states and anemia. Concurrent disease and malnutrition are frequent complications which must be recognized.

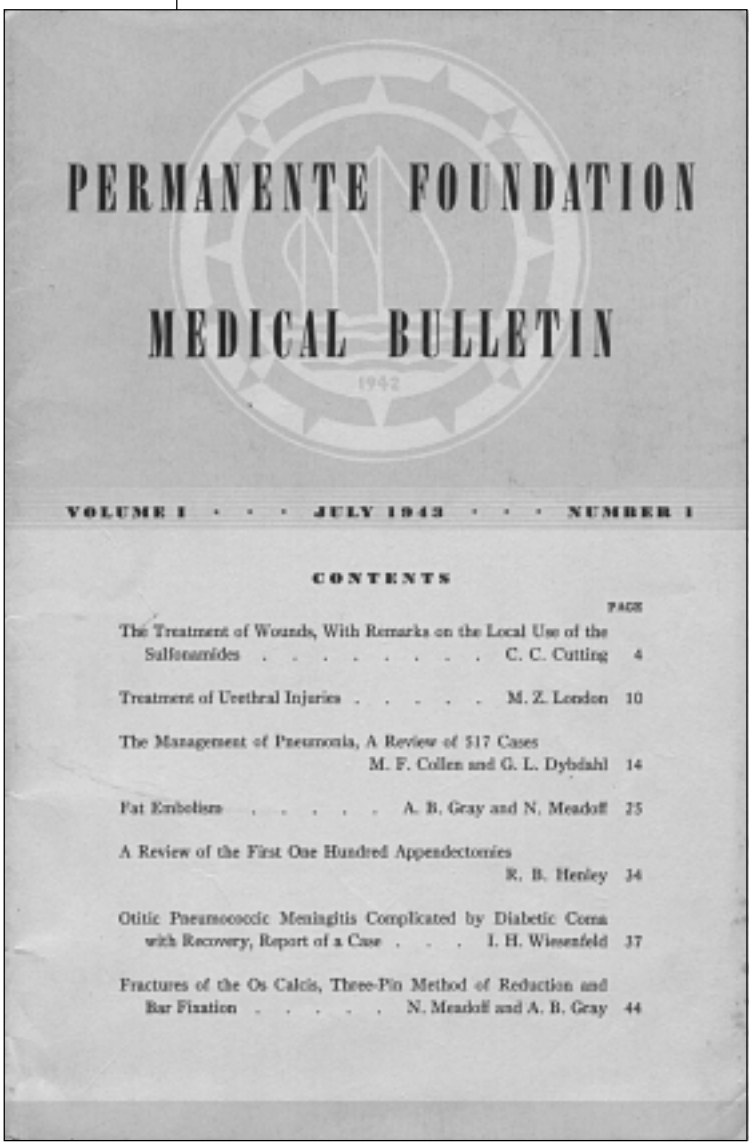
The present decade has seen many advances in the field of physiological chemistry as related to wound healing. The requirement of vitamin C for the formation of collagen in connective tissue is now recognized. Not only does the lack of intercellular cement substance result in hemorrhage into the wound space, but even partial vitamin C deficiency delays the development of tensile strength because of insufficient collagen fiber formation. Insufficient vitamin C results in abnormalities of all intercellular substances having collagen as a basis, including white fibrous tissue, bone, cartilage, and dentin. The importance of serum proteins and their effect upon fluid levels in blood and tissues are recognized. Ravdin and his associates demonstrated the disruption of abdominal

"To attain wound healing one must respect these factors and attempt to obtain a wound with the least possible amount of damaged tissue in it, an adequate blood and nutritional supply to the wound edge, hemostasis, approximation of all portions of the wound surfaces, minimal foreign reaction, and freedom from infection."

left CECIL C. CUTTING, MD, one of the pioneering physicians of Kaiser Permanente, served as Chief Surgeon at Mason City Hospital on the construction site of Grand Coulee Dam. In 1942 he became the first Chief of Staff of the Permanente Foundation Hospital in Oakland; in 1947 he became a Director of The Permanente Medical Group. He served in both capacities until 1957, when he was elected Executive Director of The Permanente Medical Group, a position he held until retirement in 1976. Currently, he is a consultant at the Division of Research. He is a graduate of Stanford University and Stanford University Medical School, he completed internship and residency at Stanford Lane Hospital and San Francisco General Hospital.

right THOMAS MCDONALD, MD, is a graduate of the U.S. Army Military Academy at West Point and of Cornell University Medical School. He completed his residency training at Letterman Army Hospital and had a distinguished U.S. Army Medical Corps career, including the position of Chief of Surgery at Letterman for a number of years. He came to the Kaiser Permanente Medical Center as Chief of Surgery in 1987 and was appointed Physician-In-Chief in 1997.

wounds in over 70% of dogs operated on in the presence of hypoproteinemia. The wound edges were soggy with edema and the initial phase of healing was delayed one to two weeks. Protein is needed not only for maintenance of intercellular fluid balance but also for cellular nutrition. High protein diets tend to increase the rate of healing while high fat diets tend to delay it. Acidosis in dogs, developed by the administration of ammonium chloride, apparently shortens the period of wound healing.



PERMANENTE FOUNDATION

MEDICAL BULLETIN

1942

VOLUME 1 · · · JULY 1943 · · · NUMBER 1

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The cover of the inaugural issue of the "Permanente Foundation Medical Bulletin," as it appeared over 50 years ago.

Sulfonamide Therapy

Sulfonamide therapy, a new chapter in the control of wound infection, began with the discovery of sulfanilamide. Since its discovery in Germany and its introduction into this country through England, the excellent results obtained by its use in controlling certain systemic infections have been widely recognized. It was early noted, however, that comparable results were not obtained in local suppurative lesions when the drug was administered orally or parenterally.

Local application of sulfanilamide was first reported in 1937 when it was used in dry sockets by the dental profession. In 1938[1] the excellent results following its use on chancroid lesions were reported. It was found that high concentrations were obtained in the surrounding tissues without either local or systemic toxic effects.

Although this lack of toxicity was true for the earlier small applications of sulfanilamide, it was soon found that its use in more extensive wounds might result in a blood concentration comparable to that obtained after oral administration, and the same systemic toxic manifestations might be seen. This is particularly noted in wounds whose surfaces are of considerable extent or are more than usually vascular.

The first conclusive evidence of the advantages of the local use of sulfanilamide was reported by Jensen[2] in 1939 in a series of compound fractures. After careful debridement of the wounds, sulfanilamide powder was inserted, and the skin was closed tightly. In this series of 39 cases, no infection developed as compared to the occurrence of infection in 27% of a control group.

Since that time it has found use in operative wounds, perforated appendicitis, perforated peptic ulcers, bowel surgery, osteomyelitis, mastoiditis, burns, leg ulcers, decubitus ulcers, conjunctivitis, and especially traumatic wounds.

In 1939, an inhibitory effect of sulfanilamide upon the healing of experimental stomach wounds in dogs was reported. However, the following year Taffel and Harvey[3] of Yale, on a large, carefully controlled series found no effect upon healing time or tensile strength of experimental wounds. These experiments were with sulfanilamide given orally, and they have been generally confirmed. When used locally, even with the much higher concentration of either sulfanilamide or sulfathiazole obtained in the proximate tissue, no effect upon the healing of the wound edges is demonstrable although the presence of packed clumps of powder in deeper tissues or separating skin edges may mechanically delay healing. Either drug may be placed into the peritoneal, pleural, or joint cavities with im-

punity, except for the amount of absorption and systemic effects. The powder may be sprinkled beneath Tersch grafts or upon brain and nerve tissue. There is no demonstrable injury to any tissue cells.

Prolonged application of either sulfathiazole or sulfanilamide powder to a granulating area does appear to cause a grayish edema of the granulation tissue. Temporary discontinuance after several days, or the employment of Dakin's solution, rapidly freshens the granulations. Occasionally a sensitivity may be developed to continued use of either sulfanilamide or sulfathiazole. In these instances the wound edges become inflamed and vesicles develop on the surrounding skin. A systemic febrile reaction has been observed following the use of both drugs in sensitive individuals when the application of the powder was made on fairly large granulating areas. This is infrequently seen with sulfathiazole.

A combination of sulfanilamide and sulfathiazole powder may prove most desirable since the presence of one does not effect the solubility of the other in wounds, each being absorbed to its maximum extent. Sulfanilamide may questionably be more effective against streptococcus infection than sulfathiazole, but it is absorbed so rapidly that its blood concentration begins to fall within 12 hours. Sulfathiazole, on the other hand, is absorbed more slowly and its action persists four to five days. The systemic absorption is so small that, after implantation of four to five grams in the usual compound fracture wound, the concentration in the blood will be so slight that it is not measurable. Systemic toxic manifestations, therefore, with sulfathiazole implantations are seldom seen.

Small amounts of peptone reduce the effect of sulfanilamide and sulfathiazole, and small fragments of tissue interfere with their bacteriostatic effects in vitro. The extreme importance of adequate debridement of traumatized and necrotic tissue from wounds is immediately obvious. Present authors in military surgery are tending to discount the necessity of debridement, but they likewise sacrifice the possibility of primary closure of wounds.

The local use of sulfonamide derivatives in no way lessens the need to respect all of the cardinal principles required in obtaining wound healing which have been mentioned previously.

Treatment of Wounds

There are four types of surgical wounds which are encountered. The treatment applicable to each type is briefly set forth in the following paragraphs.

1. *Clean operative wounds:* There are now reported in the literature large series of such wounds into which sulfanilamide or sulfathiazole have been inserted and which have healed with no complication, no infection, and no delay. These drugs may be placed with impunity in all joint and body cavities. It is only when unnecessarily large amounts are used and clumps pack within the wound or separate skin edges that serum collects.

Sulfathiazole is slowly absorbed and unless large amounts are placed in the peritoneal or pleural cavities or on large granulating areas there will be no toxic absorption. Sulfanilamide is more rapidly absorbed and raises the blood concentration at a rate nearly paralleling oral administration.

In clean operative wounds there is always a possibility of a break in technic, especially in prolonged surgery with strenuous manipulation or retraction. There may be liquefaction of fatty tissues, trauma to muscles and fascia which predispose to infection.

It is not necessary to advocate its routine use in clean, non-traumatizing surgery, although many do. Its use must in no way temporize with necessary care and niceness in surgical technic or easy, careful handling of tissues.

2. *Contaminated traumatic wounds:* In this group are included lacerations and compound fractures which are treated early, that is, within 6 to 12 hours. Although circumstances of military surgery may demand compromised treatment, the aim of modern industrial and traumatic surgery is to attempt a careful and complete debridement and closure by primary suturing without drainage.

There is no question that the local use of sulfathiazole powder in these wounds allows them to be closed with good assurance of primary healing without infection. It admits the use of internal fixation in the treatment of compound fractures which has, heretofore, been definitely hazardous.

Systemic administration of sulfonamides are usually not necessary for this type of case.

3. *Acute pyogenic infections:* These may be divided into late, contaminated wounds, and into hematogenous pyogenic osteomyelitis and pyogenic arthritis: (a) The first of these late, contaminated wounds are those in which time has elapsed to permit development of infection. Almost no wound under six hours is so dirty or contaminated that it cannot be debrided and converted into a wound which may be closed tightly and without drainage. Possible exceptions to this are traumatic wounds of the rectum, and perhaps the bladder, and wounds of an extremity so extensive that the circulation to the area is seriously impaired.

After a delay of 12 hours, however, the infecting bacteria are not on the wound surface but

"Present authors in military surgery are tending to discount the necessity of debridement, but they likewise sacrifice the possibility of primary closure of wounds."

have penetrated into the tissue. These patients are ill with a systemic infection and need sulfonamide medication in full doses. Sulfadiazine is proving to be the drug of choice for oral and intravenous administration. In addition the wound should be adequately opened and drained, foreign bodies should be removed, and obviously devitalized tissues grossly excised. These wounds must be left open and generously dusted with sulfathiazole powder. Heat, rest, and elevation are indicated as may be gas gangrene polyvalent serum and other supportive measures. To date, sulfonamides do not replace tetanus or gas gangrene sera. (b) In the group of hematogenous pyogenic osteomyelitis or pyogenic arthritis the problem is somewhat similar except that the focus has not been drained. At the present time there is considerable difference of opinion as to whether or not this local abscess should be attacked surgically. Local infection with areas of necrosis should probably be drained as soon as it is safe to do so. Chemotherapeutic agents administered by mouth cannot be relied upon to sterilize an abscess cavity in the bone. The concentration of the drug in the abscess fluid is probably about 50% of that obtained in the blood, and is insufficient to kill staphylococci. This is equally true with soft-tissue abscesses, furuncles, etc.

In acute pyogenic arthritis the same is true. If the infection has progressed to cartilage necrosis, the joint should be opened widely and washed with normal saline followed by sulfathiazole implantation into the joint. In minimal and early infections, oral or intravenous sulfadiazine may be sufficient without surgical drainage of the joint. A far greater degree of residual joint function is now being obtained than was experienced prior to the use of the sulfonamides.

4. *Chronic osteomyelitis with sequestrae, draining sinuses, bone cavities, etc.* One of the most amazing examples of the efficacy of the use of sulfathiazole powder locally is in this type of wound. These sinuses need to be opened and cleaned out, necrotic tissue removed, and after the application of sulfathiazole powder to these wounds the skin edges and fascia may be brought together with through and through sutures and primary wound healing may be expected. This allows the approximation of freshened wound edges and the closure of dead spaces.

Summary

There are both local and systemic factors which play important roles in wound healing. To attain wound healing one must attempt to obtain a wound with the least possible amount of damaged tissue in it, an adequate blood and nutritional supply to the wound edges, hemostasis, approximation of all portions of the wound surfaces, minimum foreign body reaction and freedom from infection. Serum protein levels and vitamin C availability are important systemic factors which must be recognized.

As a rule, recent wounds may be debrided and closed tightly with the use of sulfathiazole powder in the wound. This allows more prompt healing, shortened disability and more complete function than is seen if wounds are left open and allowed to heal by granulation. Local and systemic requirements for wound care, however, must be recognized if the conversion of contaminated to clean wounds is attempted.

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"Dr. Cutting's ... stated principles of wound healing have stood the test of my lifetime."

Commentary by Thomas McDonald, MD

PIC at Oakland, Chief of Surgery from 1987-1997

Dr. Cutting's "The Treatment of Wounds," was published the month I was born, over half a century ago. As I reviewed his article, it was readily apparent that his stated principles of wound healing have stood the test of my lifetime. He identified the following six important local factors which affect wound healing: 1) amount of damaged tissue in the wound, 2) adequacy of the vascular supply to the wound edges, 3) amount and character of the exudate in the wound space, 4) approximation of the wound surfaces, 5) presence of foreign bodies within the wound, and 6) character and extent of infection.

Modern essayists might lump or split these six factors or give them other labels, but no one would claim that they are unimportant. Dr. Cutting also emphasized the major systemic value of good nutrition and essential vitamins and explained the differing characteristics of clean operative wounds, contaminated traumatic wounds, acutely infected wounds, and chronically infected wounds.

Dr. Cutting's main theme was wound treatment using local placement of sulfonamide powder as appropriate for various categories of wounds. This practice has, of course, been supplanted by use of systemic antibiotic treatment. However, some

surgeons still cling to the belief that local antibiotic irrigation for selected wounds is still useful. Based on Dr. Cutting's and others' reports, I personally have used bacitracin solution irrigation during my entire surgical career and am reluctant to change a successful (albeit perhaps less than perfectly scientific) practice.

At a recent Permanente Medical Group dinner, I had the privilege to share a drink and a few minutes of talk with Dr. Cutting. As he spoke in a clear and thoughtful manner, I felt confident that, if the need arose, he could come to the emergency room, clean up my wound, carefully sprinkle sulfa powder into it, and I would be just fine. ❖

Stewardship

"Many of us do not want that much information, but that is the part of us that still wants to be taken care of, that wants to be a child. We hear the cry that all that "business literacy" stuff is for administrators and bureaucrats, leave us alone so we can just do our jobs. Don't nibble that bait off that hook. Customer, financial, and systems responsibility is essential to everybody's job. Anyone who does not want to learn these things cares little for the well-being of the larger organization. Another form of self-interest. Organizations that allow anybody to get too distant from either their bankers or their marketplace will not survive. Learning what it takes to keep the ship afloat is the price we pay for our desire for more voice and more control."

Peter Block, Stewardship: Choosing Service Over Self-Interest, Berrett-Boehler Publishers, 1993.

By Kathryn Keller Biddle, NP, RN, MS

The Young Mother's Club

A Program Designed for the Special Needs of Pregnant Adolescents

This "review of best practices" article describes the specialized program implemented at Kaiser Permanente (KP) Medical Center in South San Francisco for pregnant adolescents. This program has existed for eight years and has been a model for other "Teen Pregnancy Programs" in the KP Northern California. I wish to share with other health care providers the benefits and results we have seen and to encourage other KP clinics to develop these programs as well.

Introduction

The 38-year-old woman sat to my right, weeping openly. Her daughter sat to my left, looking uncomfortable, one tear sliding silently down her cheek. She was only 14 years of age.

"Still, she was shocked when the advice nurse had informed her the test was positive: She was pregnant."

The young girl's menstrual period was now three months late. Finally, she had come into the Kaiser Permanente (KP) laboratory after school for a pregnancy test. Still, she was shocked when the advice nurse had informed her the test was positive: She was pregnant. She was offered an appointment with me, the Young Mother's Clinic nurse practitioner, for the next afternoon.

This scene is a frequent one for me yet each time I am sad for both mother and daughter. Neither were prepared for this moment. Neither had expected this news. Neither could begin to realize how much their lives would change from this time on.

I quietly questioned how the young girl felt. Had she told her boyfriend the news? Did she understand her choices? Had she already come to a decision?

The problem of teen pregnancy is well documented. Statistics show that >1 million U.S. teenagers per year become pregnant. According to data released by Planned Parenthood Foundation of America, Inc, 11% of all teens aged 15 to 19 years old become pregnant each year, a rate twice that of other industrialized countries.[1] The March of Dimes reported that 40% of pregnant teenagers will subsequently become pregnant within two years.[2]

Two of the earliest studies to document the benefits of Specialized Prenatal Adolescent Programs on maternal and infant outcomes were published in the 1980s. In 1983, Neeson et al[3] at the University of California, San Francisco found that the outcome of teen pregnancy when managed in specialized antenatal programs more closely resembled the pattern of young adults rather than the outcome of teens cared for in a general clinic. Three factors; early prenatal care, adequate emphasis on nutrition, and nursing management in primary care were cited as contributing to these results. Infant weight and gestational scoring as well as Apgar scores were significantly better than those in a general clinic.

Slager-Earnest et al[4] also documented improved outcomes with their 1987 study of 100 pregnant adolescents. Fifty attended the specialized program, and 50 did not. Mother and infant pairs in the program had fewer complications than those who did not participate in the program.

The Young Mother's Club

Eight years ago, the Young Mothers Club (YMC) was designed in the KP South San Francisco obstetrics and gynecology department to meet the needs of our pregnant adolescent population. We hoped that our young clients would experience the benefits of a specialized program. YMC had six specific goals: 1) to provide easy access to early prenatal care; 2) to ensure improved self-esteem, parenting skills, and higher rates of breastfeeding; 3) to improve nutritional status, and reduce anemia; 4) to encourage continued formal education; 5) to reduce the rate of complications associated with teen pregnancy (eg, low birthweight, preterm labor); and 6) to prevent teen pregnancy. Our clinic consists of a physician, two nurse practitioners, a dietitian, and a social worker.

The YMC meets each Thursday afternoon. The young women meet in our departmental conference room, where a light, nutritious snack, videos about pregnancy and parenting, and a table of free written information have been set up. Donated baby clothes and other related items are displayed for the teens to take home. Periodically, drawings for large donated items such as high chairs, car seats, or strollers are held. A 30-minute class is given at each clinic session. Taught by experts from our own department or from the pediatrics department, classes feature such topics as: Breast/Bottle-feeding, Infant care/Bath, Parenting, Relationships, Drug and Alcohol Use, Sexually Transmitted Diseases, Birth Control Planning, and Hospital Routines/Early Labor. In addition, our medical center provides a 6-week childbirth preparation course at no cost.

Since its beginning the YMC staff has cared for >1000 young women aged 12 to 19 (excluding teenagers who chose to terminate their pregnancies after receiving initial counseling) who were KP members. Clients are referred either from the pediatrics clinic or directly by the obsteterics and gynecology advice nurse when clients receive positive results of a pregnancy test. In a session conducted by one of two nurse practitioners, clients are offered initial counseling to discuss their options. This session is often very emo-

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tional and may include the client's parents, the father of the baby, or a combination of these. Clients who decide to continue the pregnancy are then enrolled into the YMC program.

After being enrolled in YMC, adolescents are given a "pregnancy confirmation" visit. This visit is conducted by the YMC nurse practitioner who provided initial counseling and, if possible, is scheduled within the first 6 to 7 weeks of pregnancy. Teenagers who are tested late in pregnancy are seen within a few days of being given the positive result. This visit is usually about 60 minutes and includes a complete medical history, family history, social situation evaluation, and complete physical examination. The pelvic examination is the first for many girls, and special care is given to explain all aspects of this examination. Routine prenatal blood testing is done; testing for sexually transmitted disease (STD) is done and HIV counseling and testing is encouraged. Use of drugs, alcohol, and cigarettes is evaluated by using a written questionnaire. Routine urinary drug screening is done after obtaining written consent. Pregnancy-related information on diet, exercise, body changes and fetal development is discussed, and each client is given a pregnancy journal in which to record her own progress and feelings.

The client then meets with the YMC social worker to identify the client's specific emotional needs, family situation, status in school, and financial needs and concerns. Any substance use or abuse identified is evaluated and, if appropriate, referral is made to the drug and alcohol treatment center based in the psychiatry department.

Within one month after the first examination (sooner if high-risk factors are identified), clients will return for their second visit. This visit is conducted by our YMC doctor, who reviews the client's progress, reevaluates her needs, and performs a routine prenatal examination. At this time the client also meets with our YMC dietitian for evaluation and design of a nutritional plan to meet her specific needs. Follow-up appointments with the YMC social worker are arranged as needed.

Routine prenatal visits are continued every 4 weeks until 30 weeks of gestation; every 2 weeks from 30 to 36 weeks of gestation; and weekly until the 40th week. Care is provided on a rotating basis by either a YMC nurse practitioner or by the YMC physician. Consultation during and after YMC hours between all the YMC staff occurs. Staffing needs may vary according to size of clinic, number of clients, or both.

Family and Community Involvement in YMC

For many young women, formal education ends when they discover they are pregnant. One of our highest priorities is therefore, to help our young clients return to school or to work toward passing a high school equivalency test. From its beginning, YMC has had a close relationship with the local high schools' School Age Mothers Program (SAMP). This program provides continuing education for any pregnant teenager who resides within the geographic boundaries of the local school districts. The program provides a full-time teacher as well as a public health nurse. Regular classwork is supplemented with instruction in nutrition, pregnancy, and infant care. To further motivate our clients, we have agreed with the local school districts that they will give high school credit for classes attended in our YMC program.

To further link YMC with the community and to advance YMC's goals, the YMC physician and a YMC nurse practitioner give 40 class sessions per year at the local high school. These classes teach about male and female anatomy, sexual responsibility, STDs, "safe sex," and birth control. About 50% of these high school students are members of our health plan.

We encourage the father of the baby (or the person who is otherwise the client's partner) to attend her prenatal visits and classes. Many clients bring a friend or parent. Family involvement is encouraged by the YMC providers to give the young women a sense of security at an extremely vulnerable time in their lives. The family will often assume childcare to enable their daughter to complete her education. Acceptance by her family is especially important if the young woman has no emotional or financial support from the father of the baby. Our social worker is adept at evaluating family dynamics and at helping the family find solutions together.

YMC Client Survey Results

Statistics were compiled during YMC's first five years (1990-1994). During this time, YMC served 540 teenagers. Attrition was attributed to spontaneous abortions (8 clients) or to elective termination of pregnancy before 17th week of gestation (20 clients) after enrolling in YMC. Mean age of our clients was 17 years, the youngest was 12 years. YMC clients were Hispanic (33%), white non-Hispanic (23%), Filipino (24%), black (15%), or other ethnic groups (5%).

Rate of drug use as reported by YMC clients was 22%, rate of smoking was 21%, and rate of alcohol use was 16%. Nearly all (98%) of YMC clients reported discontinuing all use of these substances after entering the YMC program.

Cultures for STDs were positive in 21% of YMC clients. Chlamydia was the most frequently reported sexually transmitted infection: 38 cases treated (in-

"For many young women, formal education ends when they discover they are pregnant."

cluded many which had been discovered during the initial physical examination.)

Clinical Statistics Supported YMC Goals:

1. Access to prenatal care was increased and was received earlier: 41% of YMC clients entered the program between 6 and 10 weeks of gestation, 30% between 11 and 15 weeks, and 14% between 16 and 20 weeks of gestation.

2. Rate of breastfeeding was high (90%), as was participation in courses which taught parenting skills and childbirth preparation.

3. Although still the most common complication seen at YMC, anemia (which occurred at a rate of 20%) is easily treated if identified early and nutritional support and supplementation are given.

4. Of all YMC clients, 52% continued in high school, 31% were high school graduates, 7% were working towards their high-school equivalency certificate, 5% enrolled in college-level courses and 5% withdrew from all educational programs.

5. Rates of premature labor (7%) and of pregnancy-induced hypertension (5%) were comparable to those of normal adult populations. Rate of cesarean section rate was low (8%). Normal birthweights increased between 1990 when 7% of newborns weighed <5 lb (2.25 kg) and 71% weighed 6 to 9 lb (2.7kg to 4.05 kg) and 1994 (when no newborns weighed <5 lb and 81% weighed 6 to 9 lb).

6. Rate of repeat pregnancy (10%) was consistent for five years.

Each year since our original statistics were compiled, the number of clients enrolled in the YMC has increased; in 1996, 150 teenagers participated in the YMC program. In the same year, in a joint effort with our pediatrics department, we began inviting all adolescent girls (usually aged 14 to 15 years) for a "personal talk" with one of the YMC nurse practitioners. These visits give us a chance not only to answer their questions but to provide information about their changing bodies, emotions, sexuality, and the serious issues surrounding sex at an early age. Abstinence, birth control, and safe sex are discussed. Girls who are already sexually active are given a pelvic examination, STD testing, and contraceptives.

In collaboration with the pediatrics department, our social services department was recently awarded a KP Innovation Program grant which will enable us to continue observing YMC participants after their babies are born. This program will include support groups and continuity of care.

Conclusion

Teenage pregnancy is a serious issue. Providing specialized services to meet the identified needs of our young clients will help them face the future and its responsibilities. Providing information and open discussion through easy and confidential clinic access, as well as contributing community service to our schools, may help reduce the number of teenagers who later need our services for prenatal care or pregnancy termination.

For health care providers involved in the Young Mothers Club, the rewards are many. One particular couple comes to mind: after the girl became pregnant (at 15 years), they worked together, attended all her prenatal visits, and finished school. A letter and picture of their young family arrive every Christmas. At 22 years of age, the parents are now married, employed, and happy. The young woman writes every year to thank us for the difference our clinic made in her family's lives. "Best practices" are those which make a difference. ❖

"Providing specialized services to meet the identified needs of our young clients will help them face the future and its responsibilities."

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By Rob Ryan, MD

Primary Care Redesign

For the past several years, Kaiser Permanente has been fundamentally redesigning primary care delivery in Georgia. We have built a unique model centered on physician ownership and accountability along with incentives and compensation levels which are tied to performance and member satisfaction. Structured around small, semi-autonomous teams, this model blends the best of two worlds by leveraging the scale, structure, experience, and reputation of the nation's largest and most respected health maintenance organization (HMO) to create and support small teams of medical professionals who manage the care of a defined panel of patients.

Introduction: The Challenge

Kaiser Permanente in Atlanta, Georgia (KP-Atlanta) began operations in 1985, and by 1992 there were more than 156,000 members enrolled. The plan had accumulated operating debt of approximately $80 million at a time when competition was intensifying. A 1993 study showed that our internal cost for delivering primary care was about 40% higher than in community practice. Our competition was delivering primary care much more efficiently, and our predictions suggested that our price disadvantage would increase.

The Primary Care Redesign Model

To meet these challenges, in 1993 KP-Atlanta developed a turnaround plan which focused on three building blocks of successful prepaid group practice: open access to care, increased productivity, and a physician workday policy which defined a minimum number of hours per day which each full-time physician or associate provider (nurse practitioner or physician assistant) would devote to providing direct ambulatory patient care.

A fundamental component of this turnaround plan was major redesign of primary care centered around development of health care teams. Although the initial intent was to find new efficient methods of delivery, perhaps even more important was that this redesign ultimately became a vehicle to improve patient satisfaction and to make market-leading quality improvements.

After about a year of assessment and design, in 1995 we implemented a 6-month pilot program at one of our facilities, followed by implementation of the program at our nine medical facilities over the next 18 months. Throughout the implementation process and at every operational level, all physicians or other employees were required to reapply for positions on the team and to participate in a behavioral interview. In behavioral interviewing, applicants are asked to give specific examples of their past experiences which would show high probability of possessing skills necessary in their positions. For instance, all health care team leaders and facility managers were interviewed and were evaluated for skills in leadership, coping, and making decisions.

Our next step before further implementation was to install the leadership positions—facility managers and health care team leaders. First, for each facility we selected management teams consisting of a physician-manager and a medical center administrator. We made it clear that all facility managers were required to reapply for their old jobs without any guarantee of reappointment. The primary competency requirement for these middle managers changed from direct line management to coaching and mentoring health care teams to support their increasing autonomy. Next, senior managers and these facility managers participated in behavioral

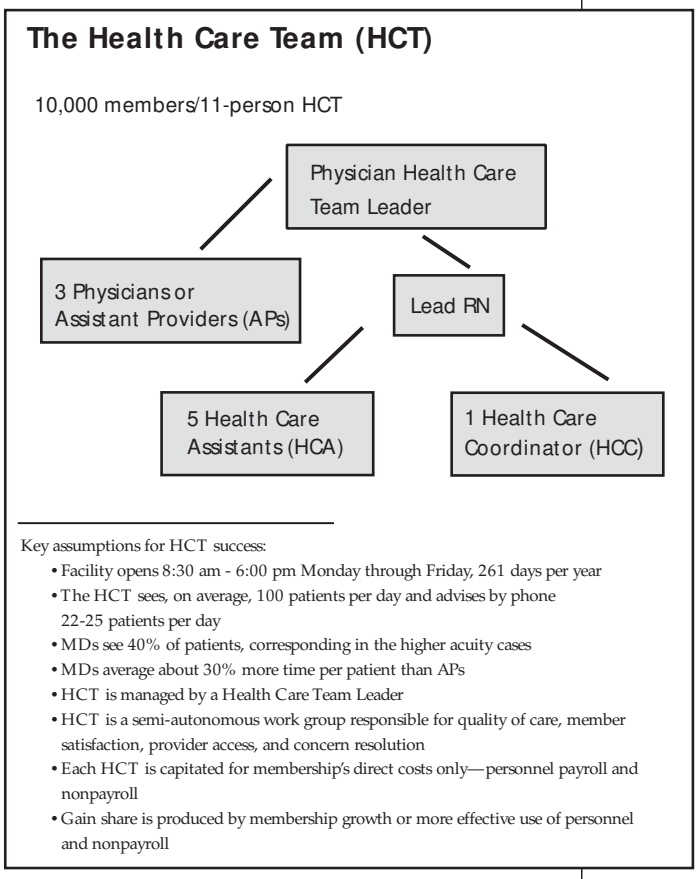

Fig. 1.

"We have built a unique model centered on physician ownership and accountability along with incentives and compensation levels which are tied to performance and member satisfaction."

ROB RYAN, MD, is the Associate Medical Director and Chief Operating Officer for The Southeast Permanente Medical Group, Inc.

interviewing of applicants for the 24 physician health care team leader positions, during which time they were asked specific behavioral questions about management skills believed to be important in managing the new teams. After the health care team leaders were in place, they in turn initiated a selection process for their lead nurses by soliciting applicants for these positions. The positions prompted a high level of competition, and many nurses were willing to change facilities to become lead nurses. After being chosen, the lead nurses and health care team leaders posted the positions for providers and other team employees. Again, multiple applicants were considered for every position, and only the most suitable were chosen.

Training of our teams was very detailed during implementation of the program, which occupied eight full days for each team. Teams were therefore unavailable to provide patient care during the training period.

This entire implementation process took place throughout KP-Atlanta in 1996, and all health care teams were in place by the beginning of 1997. Throughout 1997 and 1998 we expect to continue implementing major pieces of the primary care redesign, including introduction of more advanced technology and new compensation systems.

"We want the same outside community economic issues to affect each health care team."

The Health Care Team

A team-based approach to primary care is at the core of our primary care redesign and is embodied by health care teams (Fig. 1). All 24 teams are led by a physician who is accountable for the team's budget and overall operations. Although a team staffing model was developed, in reality we allow each health care team leader to determine makeup of the team as long as the team stays within budget. Team members center their duties around caring for the panel of patients assigned to the team. This panel concept facilitates population management, and we expect that by providing personal and satisfying care, our teams will "grow" their own membership as part of their business strategy.

How does a fee-for-service practice expand its business? Stated differently, why grow a practice? We want the same outside community economic issues to affect each health care team. Specifically, a team can increase its revenue by increasing the number of patients on its panel. Issues of revenue appropriation (e.g., determining number and combination of providers, nurses, or other employees or nurses which will make up the team) will be decided at the health care team level. In addition, compensation arrangements will allow incentives to be offered for the team to optimize productivity and will no longer impose divisional directives in areas such as patient scheduling.

For our patients, value is created at the team level, and our new health care teams will not succeed unless they continue to provide highly personal, accessible care which produces defined, measurable, high-quality outcome. In the past, KP-Atlanta improved access to care by initiating a work policy which required all physicians and associate care givers to provide direct patient care for at least the defined minimum number of hours daily. In the future, each health care team will define the time and modality of care needed to meet the demands of each team's panel of patients. The health care teams become successful by increasing the number of members assigned to their team and then providing satisfying care to these members. The divisional administration is developing the skills necessary to measure the outcomes and patient satisfaction and to use the results to measure success of the health care teams. Each team will be given this information to aid in evaluating its own performance.

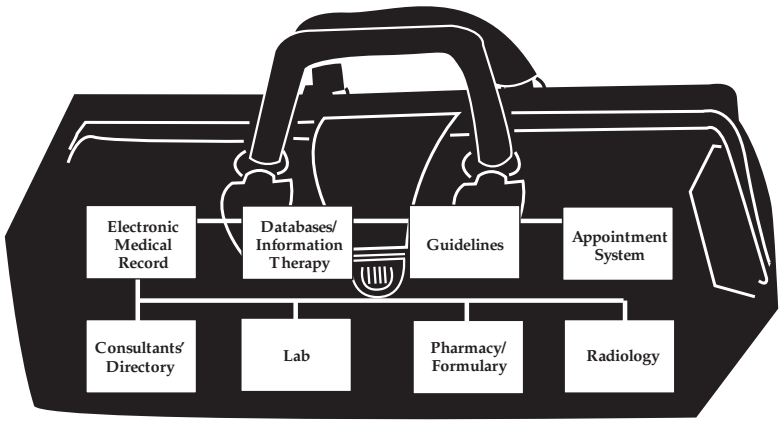

Fig. 2. The electronic black bag of the future.

Technological Support

Throughout KP-Atlanta, electronic medical recordkeeping (Fig. 2) is a high-priority goal which, when achieved, will greatly assist in managing each health care team's panel of patients. The plan is to introduce a pilot version of the electronic medical record in 1998 with full implementation regionwide pending results of the pilot. The electronic medical record will be integrated into the laboratory, pharmacy, and radiology department systems, the referral system, and a new physician profiling system. The profiling system will allow us to more accurately determine acuity and panel size for each health care team. Although the technology will mainly facilitate medical care provided by our health care teams, it will also aid in measuring team performance when

evaluating in the health care teams. These new forms of technology can measure both cost and quality of performance.

Telemedicine

The ability to provide daytime advice by telephone is incorporated into the health care teams; after hours, advice is provided by a regional call center, a leveraged service started in 1996 which is also a centralized provider of appointments.

Telemedicine expands patients' access to care while improving efficiency at the health care team level. A study clearly showed that our patients responded positively to being given an appropriate appointment by telephone. Since then, we have encouraged our health care teams to schedule telephone appointments; currently, most are doing so at a rate of about two appointments per session with a patient. We envision many health care teams expanding the use of the telephone appointment to provide efficient care to its panel of patients.

Complete, Integrated Care

As mentioned, our health care teams are encouraged to take responsibility for the panel of patients assigned to them. We expect the health care teams to involve patients as much as possible in their own health care decisions. This kind of care should become more personal, more realistic, and rely less on referrals. For our patients, this style of practice should create real value: care becomes less fragmented and more personal, and the health care team assumes clear-cut accountability for its performance. This concept represents the new frontier of health care delivery, and education of our primary care providers is its cornerstone. Physicians practicing both in primary care and in specialty areas have created and agreed upon clinical guidelines whose appropriate use can be measured in ascertaining the health care team's success.

Disease Prevention and Early Intervention

The primary care redesign model emphasizes disease prevention, early intervention, and disease management by each health care team. Accordingly, health care team training emphasized disease prevention and early intervention as well as other elements of the team's duties: Prevention programs such as for smoking cessation, breast cancer screening, management of acute low back pain, and ensuring child immunization were discussed in detail. Each health care team was trained in member communication and follow-up procedures specific to the identified intervention programs. We expect that in the future, incentive programs for health care teams will be aligned around accomplishing certain prevention and early intervention goals.

Budgets and Incentive Programs

Each health care team's budget is capitated and allows for capitation surplus to be gain-shared (Fig. 3). Total compensation is linked to patient satisfaction and to quality of outcome. This arrangement encourages increase in size of the team's patient panel while ensuring high-quality performance and increasing patient satisfaction. The Board of Directors for The Southeast Permanente Medical Group has recommended adding a flexible component to the standard salary system which would allow a portion of each provider's compensation to be flexibly distributed according to productivity, patient satisfaction, and quality of service, with each service setting its own performance measurements. Because each physician health care team leader must understand the business principles involved in compensation and in capitation, practice consultants have been hired to work with these physicians to expand their knowledge of budgeting, capitation, and general office efficiency. Most of the 24 physician-leaders are inexperienced in this area, so we have embarked on a rigorous management training program for all of them. Certainly not all physicians are natural entrepreneurs, and part of the challenge is to create sufficient knowledge of good business practices at the health care team level.

"Total compensation is linked to patient satisfaction and to quality of outcome."

New Management Structure

During the redesign process, we realized that the traditional Kaiser Permanente management structure would not support this future model; for this reason, a new management structure was created specifically to support the concept of semiautonomous health

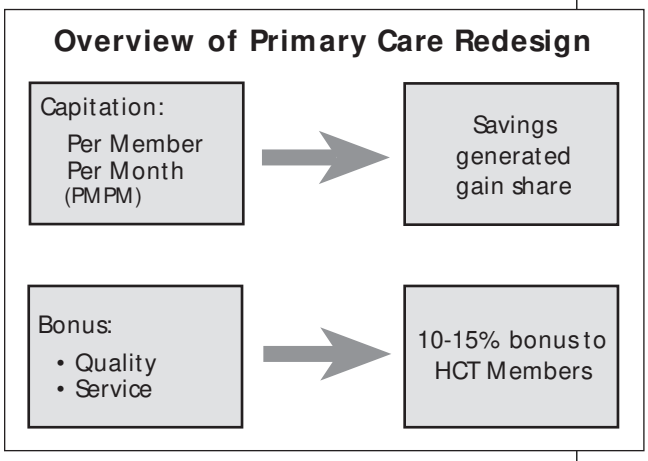

Fig. 3.

care teams. This management structure supports and fosters physician ownership and team accountability for high-quality health care, patient satisfaction, and office efficiency. As mentioned, each health care team is led by one physician to whom the team's other physicians, providers, and personnel report.

Middle management at the facility level has also experienced an important change as mentioned, with its primary responsibility being to mentor and facilitate development of each health care team. Success of these managers will be measured by success of the health care teams in their facilities.

At the senior level, an associate medical director for primary care has been established to oversee the entire primary care redesign and its implementation.

Summary

We have created a model of health care delivery which emphasizes physician ownership and accountability. Empowerment and innovation have been encouraged while maintaining Kaiser Permanente's long-standing value to the community. Each health care team has been encouraged to become a semiautonomous business unit making its own decisions about how care is delivered to its patients. Concurrently, the regional administration is improving its evaluation of team performance, patient satisfaction, and quality. Ultimately, such evaluation should enable each team to align its compensation system toward persons or groups on the team who show the highest levels of quality, satisfaction, and efficiency.

The overall impact of our primary care model design has been profound. Clear accountability at the health care team level—most specifically, accountability of the physician health care team leader—has created an atmosphere of physician ownership and accountability not seen before in KP-Atlanta.

Although health care teams are now in place throughout KP-Atlanta's nine medical centers, the primary care redesign effort is far from complete. Computerized medical recordkeeping and other technological initiatives are yet to be fully implemented. However, even more important is the transition we can only term "cultural change," which we have found to be a slow, step-by-step process. The challenge has been to focus on the end state: a delivery system where quality is improved and patients are cared for efficiently in a service-oriented, member-friendly way. With such a system in place in Georgia, Kaiser Permanente will be ready to meet the health care challenges of the future. ❖

"The challenge has been to focus on the end state: a delivery system where quality is improved and patients are cared for efficiently in a service-oriented, member-friendly way."

"Before people will accept a new idea, they will do everything in their power to integrate it into the old way of thinking."

Margaret Wheatly, Leadership and The New Science

By William M. Caplan, MD

The Hospital-Based Specialist Program

Hospital-Based Specialist programs are being widely implemented at Kaiser Permanente in Northern California (KP-Northern California). Expected benefits include enhanced quality of care, more efficient utilization of resources, and improved access to clinic-based practitioners. Emerging best practices and significant implementation challenges are described.

During the past several years, physicians have begun to add unusual acronyms to their resumes: HBS (Hospital-Based Specialist), CBS (Clinic-Based Specialist). These initials signal the beginning of a profound change in the organization and delivery of medical services. This article examines the rationale, design, expected benefits, and challenges to implementing these programs, which are being introduced throughout Kaiser Permanente (KP).

Motivating these changes is the value proposition—enhanced quality and service provided at neutral or reduced cost. Why might new initiatives lead to enhanced quality of care? Hospital utilization has been declining for several years—a result of improved preventive health care, use of care maps and practice guidelines, and more effective transitional planning. This decrease in hospital census gives providers less exposure to the broad range of complex, resource-intensive illnesses of the patients who now populate our hospitals. For example, The Advisory Board Company reports that internists nationally manage an average of 22 intensive care cases per year, whereas intensivists manage 610 intensive care cases per year.[1] Maintaining the requisite skills to manage this patient group could thus become problematic for some clinicians.

In addition, although enhancing quality of care is essential, the need to manage resources efficiently is also important. Physicians who focus primarily or exclusively on the inpatient setting will be expected to develop closer, more effective working relationships with important support services which span the continuum of care—transitional planning, social services, skilled nursing facilities and home health. Experience in KP-Northern California has shown that the outcome of these closer working relationships is placement of patients in the most appropriate care setting at the right time. Conversely, high-value ambulatory practices mandate increased accessibility and enhanced continuity of care achieved when physicians are relieved of inpatient responsibilities.

Thus a convergence of important trends is stimulating the development of HBS programs, defined as the concentration of inpatient care responsibilities among a subset of interested physicians and other providers with particular skills and aptitudes. The HBS team is closely linked with disposition planning services and is strongly supported by the enhanced availability of ancillary services.

Many health care organizations are embracing this concept. Our research indicates that 20% of independent practitioners' associations (IPAs) and one-third of large multidisciplinary groups in California have implemented HBS programs. A new medical society—The National Association of Inpatient Physicians—has recently been formed, and a national conference on HBS practice is scheduled to take place in San Francisco in December 1997. The proceedings of that meeting will be published as a supplement to the Annals of Internal Medicine.

How did the HBS program develop at KP Northern California? In 1994, Robert Klein, MD, Chief Operating Officer of The Permanente Medical Group (TPMG), commissioned a workgroup to explore the desirability and feasibility of implementing a regionwide HBS program. An extensive benchmarking survey and literature search was conducted, and several organizations affiliated with hospitals or group practice were contacted. Seven KP Regions were included in the survey: Southern California, Northwest, Texas, North Carolina, Georgia, Hawaii and Colorado. The workgroup solicited information regarding role definitions, staffing requirements, optimal workload, qualifications of HBS practitioners, relationships with other care providers, support resources, management structure, and compensation. Moreover, relevant outcome measures, including utilization in days per thousand members, admission and discharge rate, and length of stay were investigated, as were patient and provider satisfaction data. As might be expected, quantitative, validated data were sparse and published studies virtually nonexistent. Moreover, assigning causality to HBS program interventions for positive financial or health care outcomes was problematic when multiple initiatives were being launched simultaneously. Nonetheless, evidence of early program success was believed compelling enough to warrant further development.

The information obtained from this research was analyzed by a workgroup of TPMG physicians who distilled it into an initial design template. This document was then used by several facilities as a departure point for local planning and implementation efforts (Fig. l). Currently, nine KP medical centers have implemented HBS programs; the South Sacramento medical center was the first, in October 1995. All our other medical centers are in some stage of planning and development. About half the physicians at these nine facilities

"Motivating these changes is the value proposition—enhanced quality and service provided at neutral or reduced cost."

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practice solely in HBS status. Programs are generally expected to continue evolving toward full dedication to HBS practice. HBS physicians are drawn mostly from internal medicine and family practice specialties; less commonly, they are drawn from emergency medicine and (rarely) pediatrics. Hours of operation range from 9 to 24 hours, and most facilities rotate night coverage among all members of the department of medicine. Intensivists are incorporated into HBS teams at three facilities and are strongly linked at others. In addition, HBS programs may incorporate nurse practitioners, discharge planners, and transitional care planners. Thus, the program in KP-Northern California is characterized by significant variability. Ideally, use of standard methods to measure outcome will lead to recommendations regarding best practice and optimal approach.

What have we learned so far from these initial efforts? Optimal workload during the startup period appears to be 10 to 12 patients per physician daily, a patient census which translates into a 10 to 12-hour workday when admitting and discharge responsibilities are included. As physicians become more efficient owing to support by an array of ancillary services, patient census may increase but typically does not exceed 16 patients per physician daily. Experience has indicated that 50/50 practice splits become increasingly difficult to manage and certainly do not enhance continuity and availability in the outpatient practice setting.

Segregating hospital-based physicians from clinic-based physicians mandates fully effective communication links and mutual support. Experience from around the country indicates that the lack of consistent, reliable systems to ensure timely sharing of information is the "Achilles heel" which often leads to program failure. All sites of care—including hospital, clinic,

Facility	Start Date	Staffing*	% dedicated to HBS Team	Service hours	Service population	Mean daily medical/surgical census
1	10/95	1 2 44	Admit only 100% Round only 20% Round only 5%	12 7am-7pm	137,000	45
2	1/96	2 8 (GI/Pulmonologist/Cardiologist)	100% 40%	9 8am-5pm	97,000	28
3	3/96	7 6	100% 50%	16 7am-11pm	211,000	90-100
4	7/96	8 3 1	100% 50% 80%	15 7am-10pm	169,000	90-110
5	10/96	5 4	100% Teams 20%	12 7am-7pm	143,000	80
6	1/97	1 15-18	100% 25%-50%	24 8am-8pm	173,000	55
7	9/96	8 3 (Intensivist) 1 (Rheumatologist)	100% 70%	24 8am-8am	191,000	50
8	4/97	9 (Internal Medicine/Emergency) 2 1 (Pulmonologist/Internist)	100% 25% 25%	12 8am-6pm	167,000	40
9	6/97	14 2 (Gastroenterologist) 2 (Rheumatologist) 1 (Pulmonologist)	Round only 25% Call only 40%	5† 7:30am-12:30pm	79,000	8-15

* Primary care except where otherwise indicated.
† Service hours reflect limited average daily census.

Fig. 1. Hospital-based specialist (HBS) programs implemented at Kaiser Permanente in Northern California in August 1997.

skilled nursing facilities, etc.—should have access to critical data such as medical history and physical examination results, discharge summaries, and reports from care manager, laboratory, radiology, and social service departments. Moreover, the above described segregation of HBS and clinical-based practice underscores the need to maintain collegiality and shared purpose that characterizes the successful large multidisciplinary medical group.

One key issue requiring careful management is dislocation or disempanelment of patients from clinic-based physicians who will be entering HBS practice. Several key steps for this process have been identified: 1) in reallocating workload, use risk adjustment tools if available to ensure that target panel sizes for remaining clinic physicians are equitable; 2) allow sufficient advance time to mail personal letters to patients, informing them about the transition of their primary care physician and how to select a new physician; 3) create feedback mechanisms (e.g., a toll-free telephone number) to give patients opportunity to respond to these changes.

In addition, operational planning must minimize the multiple transitions ("hand offs") among hospital-based physicians which complicate communication and care planning and which do little to reinforce the sense of familiarity and confidence so highly valued by our members. Patients who will no longer be attended by their primary care physician must be reassured that their hospital care will be directed by inpatient medicine specialists committed to maintaining continuity with clinic-based physicians.

At many of our facilities, recruitment of qualified HBS candidates has been difficult during the startup period. The need to fill empty slots quickly has challenged the attempt to use a highly selective recruitment process; fortunately, however, several of our most successful programs are finding qualified candidates. Common selection criteria include 1) Board certification in internal medicine, family practice, and possibly emergency medicine; 2) exemplary clinical skills; 3) demonstrated efficient and cost-effective utilization of inpatient resources; 4) Advanced Cardiac Life Support (ACLS) certification, technical proficiency at such tasks as intubation, paracentesis, joint aspiration, intravenous line placement; 5) demonstrated interpersonal skills ("patient-friendly"); and 6) professional demeanor. Practice experience is also desirable.

Assessing the impact of HBS programs is complex and challenging. As noted above, reliably quantitating the contribution of HBS programs to declining hospital utilization rates and per member/per month (PM/PM) cost is a vexing problem when multiple interventions are concurrently implemented. Nonetheless, reports from many organizations (i.e., Parke Nicolette in Minneapolis as well as KP-Northwest, KP-Hawaii, and the KP South Sacramento medical center in Northern California) have reported decreases of 20 to 25% in utilization rates in days per thousand members or length of stay. Historical controls are used for these calculations. In our Colorado Division, the cost of care measured as PM/PM has reportedly declined 30% since the HBS program was introduced.

Efforts to develop a comprehensive, valid, evaluation process are now underway at KP-Northern California, and a quarterly "performance-at-a-glance" report is now available. Performance measures include inpatient days per thousand, admissions per thousand patients, average length of stay, hospital outpatient service (HOPS) discharge rate per thousand inpatients, home health discharge rate, skilled nursing facility discharge rate per thousand inpatients, and readmission rate per thousand inpatients. Additional facility-based measures include levels of satisfaction among patients, physicians, and other staff. In the near future, the performance-at-a-glance report will be supplemented by a common reporting system used by all KP-Northern California analytical departments. Cost and utilization will be tracked against all settings—inpatient, skilled nursing facility, home health, and clinic. These internal Cost and Utilization Indicator Reports (CUIR) will aggregate cost and utilization data across the continuum of care. The system will permit analysis of subsets of patients identified by diagnosis (DRGs), commercial or Medicare population, encounter with specific HBS physicians, and sites of care. For the first time, then, we will be able to quantitate aggregate costs as patients make the transition from hospital to other care settings. The CUIR reports will be enhanced by surveys which will assess patients' satisfaction with attending HBS physicians as well as patients' overall satisfaction with hospital stay.

To date, outcome data are limited and preliminary. Number of consultations per thousand patients has decreased significantly at several of our largest programs. Utilization measured as days per thousand continues to follow a downward trend which began before HBS implementation; we therefore cannot yet isolate an HBS program effect, but analysis by DRG may be revealing.

In summary, KP-Northern California is committed to full implementation of the Hospital-Based Specialist system. Variability exists in program design but our intent is to continually monitor and evaluate key performance indicators leading to program improvements. Moreover, we will need to create a structure which

"In summary, KP-Northern California is committed to full implementation of the Hospital-Based Specialist system."

facilitates communication, mutual support, and acquisition and maintenance of the skills required by clinic-based as well as hospital-based practitioners. Most important, we must attend to the personal and professional impact of this profound change in the traditional role of the generalist physician. Communication, choice, and respect for the values that have drawn us to the practice of medicine are paramount. ❖

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"Visit to the Plastic Surgeon," by Evany Zirul, DO, MFA.
Another piece of her work can be seen on page 59.

EVANY ZIRUL, DO, MFA, is an Ear, Nose, Throat and Facial Plastic Surgeon for the Permanente Medical Group of Mid-America, PA in Kansas City, Missouri. She creates drawings, like the one above, and bronze sculptures.

By Lee Jacobs, MD

Information Technology Development: Interview with Rand Holt

Introduction

Information technology is essential to the Permanente Medical Groups. By applying large national Kaiser Permanente (KP) databases, we can develop a powerful competitive advantage while at the same time applying this knowledge to continuously improving the patient-physician interaction. Mr. Rand Holt took time out from the busy transition to his new position to talk with *The Permanente Journal.*

—Lee Jacobs, Editor

Interview

LJ: Mr. Holt, let's begin by having you tell our readers a little about your past experiences and how you feel this has prepared you for the challenges of this new position.

Mr. Holt: During my 25 years with Kaiser Permanente (KP), I have had the opportunity to work in a variety of roles and geographic settings. I started in the Colorado Region in the early 1970s (when it was essentially a "startup" operation), transferred to our largest region—Northern California—in the early 1980s, and then to the Northwest Region in 1989. During these years, my roles ranged from being a medical group business manager to regional controller. For the last five years, I have consulted at the program level in several areas, including strategic assessment of local markets, change management, and information technology (IT).

Throughout my career, I have been included in a number of activities and projects involving IT, especially from the user's perspective. Most recently, I led a project to make recommendations to program leaders concerning our national strategy for clinical information systems (CIS). This work helped me and my team colleagues to understand the perspectives and thinking of KP physicians, managers, IT professionals, and many others involved with CIS-related efforts across our program.

From my background and experience, I have gained an understanding of the physician's view of the IT world and, I hope, the skills for managing the changes we will want to make to ensure our future viability and success.

LJ: What did you see as the main attraction offered by this position with the Federation?

Mr. Holt: I saw a tremendous opportunity to help the Permanente Medical Groups collaborate on developing IT tools that will help differentiate Permanente clinical practices and processes from other managed care models. In addition to reducing variation through implementation of best practices which can improve quality outcomes, cost performance and member satisfaction simultaneously, Permanente "practice" can differentiate itself by emphasizing clinician and member autonomy in clinical decisions. I believe that the Permanente Medical Groups, and Kaiser Foundation Health Plan's national IT organization are uniquely positioned to come up with the most effective and successful solutions. The challenges are daunting, but the potential value to our members, physicians, and other health care professionals is enormous. I am really looking forward to working with our medical groups and national IT organization to make this happen.

LJ: What are your initial strategies?

Mr. Holt: We need to build on work which has been ongoing for some time across KP. For example, many of our medical groups have been participating in care redesign initiatives and in developing clinical information systems to support this redesign. In addition, studies in disease management and outcome have been going on for some time. Much of this work helped shape our national strategy regarding the CIS capabilities we need to invest in. These CIS capabilities will create value by providing universally available, up-to-date medical records and by otherwise supporting new models of care evolving in our medical groups and helping providers to make decisions.

We're now beginning to plan how to best build these CIS capabilities. We are trying to find ways which will allow the most skilled and knowledgeable people from our medical groups to work together with the National IT organization to build and deploy new CIS capabilities nationally. The economics and timeframes for completing this project must also be considered, given the market pressures which the nation is experiencing.

However, CIS is not our only IT need. Our medical groups and health plan divisions also need support from increasingly sophisticated business systems. For example, the complexity of the health care benefits and products we market have increased considerably, requiring sophisticated techniques of data capture and analysis. In addition, some of our medical groups have been and are developing provider networks as alternative delivery models to meet local market demands, and strong relationships with network providers require effective systems support. More often than not, our current systems are inadequate, and efforts are underway to develop national solutions to meet current and future needs. As with CIS, we must ensure that our best people work together in responding to these needs.

"From my background and experience, I have gained an understanding of the physician's view of the IT world...."

"The urgency and priority for delivering CIS is high."

LJ: What will the IT solution look like for physicians? When will it be available to help them care for patients?

Mr. Holt: At least for KP physicians, the IT solution most visible to them will be CIS. We are currently preparing to develop and deploy these tools. I expect that a detailed plan to accomplish these goals will be completed by the fourth quarter of this year. Implementation is tentatively scheduled to begin by the second half of 1998; our thinking concerning the timing and scope of what will be implemented is still preliminary. The urgency and priority for delivering CIS is high.

LJ: Finally, Mr. Holt, could you share with us your vision for information technology throughout Kaiser Permanente?"

Mr. Holt: I believe our medical groups collectively have clinical knowledge and insight into best practices which could make Kaiser Permanente medicine the benchmark of quality for the rest of health care. I would like to see us develop national IT systems and support which will bring that clinical knowledge to individual KP physicians at the most important moment—when encountering a patient—and in a manner which supports the best clinical decisions.

LJ: Thank you, Mr. Holt, for taking the time to talk with us. We all wish you the very best in your new position with The Permanente Federation. ❖

RAND HOLT, MBA, is Associate Executive Director for Information Technology Development with The Permanente Federation. Mr. Holt received his MBA from the University of Colorado and joined Kaiser Permanente immediately after.

"There are no unnatural or supernatural phenomena, only very large gaps in our knowledge of what is natural.... We should strive to fill those gaps of ignorance."
Edgar Mitchell, Apollo 14 Astronaut, Founder, Institute of Noetic Sciences

By Carl Fisher, MD

The Tahoe Agreement

The "Tahoe Agreement" is probably the greatest landmark in the early history of Kaiser Permanente because it preserved the medical care program at an uncertain point in its initial development. However, the name and circumstances surrounding the creation of this agreement are probably unfamiliar to most Permanente physicians and only a faint memory to others. This article summarizes what transpired in creating the Tahoe Agreement. For complete details, readers may wish to consult John G. Smillie's book, "Can Physicians Manage the Quality and Costs of Health Care?—The Story of the Permanente Medical Group" (New York: McGraw Hill, Inc., 1991).

In the beginning: Sidney Garfield, MD

In the beginning, physicians were employees of Dr. Sidney Garfield. Trustees were responsible for management of the Kaiser Foundation Hospitals and Health Plan, largely through the person of Sidney Garfield. Henry J. Kaiser, the Trustees (Kaiser Industries executives), and Sidney Garfield were basically good friends.

This system worked relatively smoothly in the early days, but it was growing rapidly—new regions were underway in Southern California and in Portland, Oregon. The Kaiser empire was at its peak, and "Henry J"—with the assistance of his hand-picked executives—remained in total control of it all. The executives were subject to be called at any time of the day or night regardless of any personal plans or commitments. Henry J. would often get an idea in the middle of the night and phone one of his assistants to begin developing it at that hour.

The medical aspects were not in the mainstream; no Kaiser Industries money was involved in the medical operation except for grants from the Bess Kaiser Foundation (to the Walnut Creek and Portland hospitals). However, Kaiser Industries backed loans—and this support was crucial to our continuing growth and existence and enabled physicians to feel autonomous while appreciating the guidance in developing facilities and planning for patients. However, the guidance seemed to be increasing whether physicians wanted it or not, and physicians began to feel that their autonomy was threatened. A hospital administrator was appointed without first informing or consulting the Medical Group Executive Committee. In essence, the physicians were told, "You take care of the patients, and we will take care of our specialty, which is administration." We could easily envision a day when attempts would be made to dictate physician incomes, facilities, equipment, and supplies—an idea which was totally unacceptable to the Group. Serious polarization was evident—a circumstance which might have destroyed the whole organization.

In 1955, both sides realized that they had to do some reorganizing and intensive communication. Representatives from both groups met to seek an agreement. Eugene E. Trefethen, Jr was elected to serve as chairperson; subsequently, everyone was satisfied with his ability to keep the group focused and making progress. (He was the "Prime Minister" of the empire; now retired, he is best known for his premium Trefethen wines). Four two-day meetings helped define issues without solving many of them. Mr. Kaiser then invited the group for a three-day gathering at his Tahoe residence, a mile of beachfront property on which was located a large stone house and several guesthouses, each of which might have served adequately as a family home. At the end of the three days, on July 19, 1955, the group produced "Decisions of Working Council"—a document which has since been known as the *Tahoe Agreement.* Most significantly, the group agreed to work until they reached agreement and thus to preserve the medical care program. An advisory council representing all parties was set up to work out the details.

Trial and error, discussion, and arguments continued for another three years. Finally, on March 28th, the Medical Service Agreement of 1958 was approved by the Medical Group Executive Committee and was accepted by a majority of partners. This compact essentially still serves as our operating mode. Of much interest to individual partners was the provision for incentive compensation: any financial surplus which remained at the year end would be divided between the Kaiser Foundation Hospitals and Health Plan and the Medical Group; the Medical Group's portion would then be divided equally among all partners. A physician's retirement plan was also set up. The "blood, sweat, and tears" which went into the agreement are probably the main source of our subsequent strength.

What astounds me most about this story is my own naiveté. Not until years later, when I read Jack Smillie's book, did I fully realize the seriousness of the negotiations—we were close to falling apart at that time—and what a magnificent job our leaders did by preserving physician autonomy. Drs. Cutting, Collen, Baritell, and Neighbor—and later, Wally Cook—had negotiated the meetings and arguments while keeping the rest of the Executive Committee (to which I was elected in 1954) informed of what was transpiring. I had simply assumed that this kind of thing was routine for the committee and went on all the time. ❖

"You take care of the patients, and we will take care of our specialty, which is administration."

CARL FISHER, MD, was hired as the first anesthesiologist of any Kaiser Permanente region in July 1949. He is writing a "Potpourri of Memories" about anesthesia in the Northern California Region. From this collection we plan to print the story of "Anesthetic Agents in the Forties and Fifties" in a forthcoming issue.

Below are excerpts from interviews conducted by Ms. Malca Chall, oral researcher, with Eugene E. Trefethen Jr, an important negotiator representing the Kaiser management. Dr. Raymond Kay, MD, an active member of the medical group was interviewed by Ms. Ora Huth, oral researcher. Both were done in 1985. The interviews are published in "An Oral History of the Kaiser Permanente Medical Care Program", Vol. VIII (Dr. Raymond Kay) and Vol. XVIII (Eugene Trefethen). All the volumes are available in the libraries of most Kaiser Hospitals. The text of the excerpts was not edited. —Ek Ursin, MD, Editor

Benefiting Members and Their Employers: Interview with Eugene E. Trefethen, Jr.

Chall: Many people credit you with pulling it together, and making it work.

Trefethen: Well, you see, as I look at these names (Working Council and Advisory Council), these are very strong people—Dr. Kay, Dr. Saward, Dr. Collen—they're all very emotional people, too. These people get all emotionally entangled with the subject, and you have to quiet them down in order to really have them sensible about the pros and cons of various routes that we might go.

Chall: Now we have been talking about the fact that the doctor side was very emotional. Did all on your side stay calm, cool and collected?

Trefethen: No, no, Henry Kaiser would get *terribly* emotional. And I had some hard words with all of those people. But we stayed with it until we worked it out.

Chall: Mr. Fleming has written that after you'd had a number of meetings of the newly-formed Advisory Council, following the Tahoe meeting, you found that you weren't getting very far—not coming closer to a solution to the problem. So, you asked your staff to come up with some answers to some of these problems.

Part of the solution had to do with the division of responsibility—the way doctors would be compensated and the way the health plan would be compensated. Capitation and a 4% factor for depreciation seemed to be additional financial features of the plan. Did this develop out of your background in business? Or were you charting new territory here?

Trefethen: Well, basically, we finally agreed that we were partners, and that they had the autonomy in medicine, and they would have partnerships that they would organize themselves, and run themselves, and we would contract with them on a per capita basis to handle the medical side of our health plan. We would man our health plan, and we would have a board of our own, and they would not be represented on it, and we would not be represented on their executive committees, or their boards. But the head of our regional offices, the head of our regional office in Northern California would work with the chairman of their executive committee, or chief administrator in working the problems out between our health plan and hospital organizations and the doctors.

In order that they would have an incentive to do a good job in taking care of the people, and keeping them happy, satisfied, and also interested in controlling the costs, we said that they would be entitled to 50% of any of our cash flow that we obtained from the operation that they were involved in. That meant that if they could save a dollar they got half of it. If it cost a dollar, it would cost them half of it.

Our people negotiated what amounts to an annual fixed price contract with each medical group. While it's an exclusive arrangement by mutual agreement, either party could serve notice and walk away. A medical group could decide to contract with one of our health plan's competitors, and we could decide to switch to another medical group. That happened only once when Mr. Kaiser found that one of the original medical groups was treating our members as second class citizens, compared with their fee-for-service patients, and was making unjustifiable profits for what services they provided. He cancelled the contract, and several of the dedicated physicians in that group who believed in prepaid group practice stayed with it, formed a new group with the help and advice of Cliff Keene and Ernie Saward, and signed an agreement with us.

If for some reason there is a big windfall in any year, those unexpected earnings are set aside and carried forward to offset increased expenses in future years. In that way, our members and their employers who pay the costs of employee health benefits are the ones who benefit from unexpectedly large earnings. Not the doctors and not us.

So, back in the mid-1950s after we pounded it out together with the top doctors, we all agreed that the concepts sounded right and needed to be tested for fairness, equity, and workability. The relationship and the arrangement passed all the tests because all parties believed in what we're doing in our approach to meeting health care needs. It's worked in all of our regions, and there's never been any reason for change.

Active Role of Henry Kaiser, Sr. in the Early 1950s: Interview with Raymond Kay, MD

Kay: So that was working pretty well until about 1951 and '52, and again, it is in my speech. But in 1948 to '51 they changed the name to Kaiser, and

"If they could save a dollar they got half of it."

"If for some reason there is a big windfall in any year, those unexpected earnings are set aside and carried forward to offset increased expenses in future years. In that way, our members and their employers who pay the costs of employee health benefits are the ones who benefit from unexpectedly large earnings. Not the doctors and not us."

then they developed these boards, and that began to worry us. In other words we started saying, "Are they jockeying it and getting control of this medical program?" And we didn't want that to happen.

By this time Mr. Henry Kaiser, Sr., was starting to get into the act. As I said, he was interested in it now because of Ale *(Henry Kaiser's second wife)*, and he wanted to start Walnut Creek, to choose his own doctors, and not have them be part of the medical group. And he wanted to have different salaries and everything. Well, the guys up north were very upset about it, and we were too to a lesser extent, but they weren't butting in with us.

When Mr. Kaiser became interested in the medical group he made a mistake repeatedly by insisting that the doctors practice medicine and leave the management to men of experience in the management field. And when the doctors became more resistant to this takeover, and particularly to starting in Walnut Creek, he was disenchanted with almost everyone.

He was disenchanted, and he felt that Dr. Garfield should get the doctors to do what he wanted them to do. The doctors were not willing to do that, and as a result Dr. Garfield was caught in between, and I think both sides blamed him for the failure to work out problems.

Well, we went into this meeting, and I don't know if you know, but Mr. Henry Kaiser, Sr., used to take his shoes off when he got into the meeting.

Huth: No, I didn't know that.

Kay: He'd take his shoes off. And I was playing it carefully. I wasn't talking too much, which is hard for me, but I was just waiting to see how things were going. But every time I spoke he'd turn to me and say, "You're challenging me, Ray Kay. You're challenging me, and I won't stand for it." Then he started to put his shoes on to walk out of the meeting. But by the time he got his shoes on his son Edgar would talk him out of leaving. He did that about three times.

But we got by that meeting, and when we finally ended up that meeting and we had come to a point of agreement, he came and put his arm around me and said, "I know we could work it out, Ray Kay, I know we could work it out."

Huth: Were there any other tensions backing up the Tahoe Conference, other than the desire of the doctors to make sure they had charge of the things that had to do with patient care?

Kay: That we had control of the quality of care.

Huth: Yes, the quality of care, and then Kaiser's interest in good management. ❖

"'You're challenging me, Ray Kay. You're challenging me, and I won't stand for it.' Then he started to put his shoes on to walk out of the meeting."

One At A Time

"A friend of ours was walking down a deserted Mexican beach at sunset. As he walked along, he began to see another man in the distance. As he grew nearer, he noticed that the local native kept leaning down, picking something up and throwing it out into the water. Time and again he kept hurling things out into the ocean.

As our friend approached even closer, he noticed that the man was picking up starfish that had been washed up on the beach and, one at a time, he was throwing them back into the water.

Our friend was puzzled. He approached the man and said, 'Good evening, friend. I was wondering what you are doing.'

'I'm throwing these starfish back into the ocean. You see, it's low tide right now and all of these starfish have been washed up onto the shore. If I don't throw them back into the sea, they'll die up here from lack of oxygen.'

'I understand,' my friend replied, 'But there must be thousands of starfish on this beach. You can't possibly get to all of them. There are simply too many. And don't you realize this is probably happening on hundreds of beaches all up and down this coast. Can't you see that you can't possibly make a difference?

The local native smiled, bent down and picked up yet another starfish, and as he threw it back into the sea, he replied, 'Made a difference to that one!'

Chicken Soup for the Soul, Jack Canfield and Mark V. Hansen, Health Communications, Inc. 1993.

By Francis J. Crosson, MD

A New Moment in the History of Kaiser Permanente

The Formation of The Permanente Federation and the Permanente Company and the National Partnership Agreement

"The quality of care delivered at every site we call 'Permanente' must be of a level that we all can 'own' and be proud of."

Formation of The Permanente Federation and National Partnership Agreement mark a turning point in the history of Kaiser Permanente (KP) and will positively influence the future of Permanente Medical Groups. Understanding the genesis and nature of these two events is helpful for visualizing the KP of the next decade.

Background

The winter of 1996-97 saw a rite of passage for Permanente Medical Groups (PMGs) and a landmark point in the history of KP: Between December and February, the 12 PMGs formed common governance structure (The Permanente Federation), created a new national business entity (The Permanente Company), and signed a memorandum of understanding with Kaiser Foundation Health Plan (the National Partnership Agreement) to resolve a broad set of internal issues. Why did this happen, and what does it mean for the future of our organization?

On the surface, the story is simple. Early in 1996, KP began a new cycle of geographic expansion involving either merger or acquisition of health plans. Examples include the merger with Group Health Cooperative of Puget Sound (in the Pacific Northwest), acquisition of Community Health Plan (in New York) and acquisition of Humana (in Washington, DC). The case for new geographic expansion was compelling: consolidation of regional competitors into large national for-profit managed care organizations could eventually marginalize Kaiser Permanente. A sound case was made that to be a truly national organization, we need to extend our presence to other large population centers, especially in the eastern U.S.

The new expansion quickly raised basic questions: Was Kaiser Foundation Health Plan (KFHP) expanding, or was KP expanding? If expanding, then what should be the nature of the "Permanente" side of this effort? How could 12 independent PMGs manage such a national undertaking?

Another set of issues was also being formulated. In 1996, a combination of aggressive pricing and operational inefficiencies had already created operating losses for some KP Regions. Intermittent operating losses have adversely affected KP for years but in the new competitive environment were of more concern than ever. There arose a new need to fix underperforming areas quickly so that we all could thrive together.

Also, the outside world was becoming more hostile to so-called managed care organizations, a category into which we continue to be placed. As several well-publicized charges of poor quality of care have made clear, we are under a national microscope. If it was not true before, we now know that the reputations of all Permanente physicians are linked together in the national mind. The quality of care delivered at every site we call "Permanente" must be of a level that we all can "own" and be proud of.

Both these issues—improvement of performance and quality of care wherever needed—called for the 12 Permanente Medical Groups to help each other. In 1996, however, no demonstrable common will to do so was evident, and no defined organization or set of resources were available for this purpose. If organizations such as Phycor and MedPartners Mulliken could create national physician business entities, why not Permanente?

These were the issues facing the Permanente Medical Directors in 1996. To investigate the options and recommend a solution, the Executive Committee of the Medical Directors, chaired by Dr. Harry Caulfield, appointed a small group of physicians called the Business Support Work Group. The group included me, Dr. Allan Weiland (an obstetrician-gynecologist and Medical Director of KP-Northwest), Dr. Ian Leverton (a surgeon and Executive Director of Permanente Interregional Consulting), Dr. Irwin Goldstein (a pediatrician and Associate Medical Director of Southern California PMG), and Dr. Bruce Perry (a family practitioner and Executive Medical Director of Southeast PMG). We worked intensively during Summer and Fall of 1996, and in October presented to the Medical Directors a set of recommendations calling for creation of a PMG federation, a KP national business entity, and comprehensive negotiations with KFHP.

The Permanente Federation

A federation is hardly a new idea: Our country is governed by a federalist system in which certain authority is vested centrally and in which certain authority is retained locally. The question was, What central authority was needed to address common concerns, and what was best left to each PMG? The Work Group examined—and then rejected—the idea of creating a single medical group, an economic entity which would negotiate nationally with Kaiser Foundation Health Plan for our annual financial agreement (the basic contractual payment [BCP], which is contained within a Medical Service Agreement [MSA]). Creating a single, unified medical group was not thought to be either needed or desirable for solving the issues facing us in 1996.

Ultimately, on January 6, 1997, we created The Permanente Federation, whose "constitution"—the

FRANCIS J. CROSSON, MD, is the Executive Director of The Permanente Federation. He also serves as the Chair of the Board of Directors of The Permanente Company. Previously he was the Associate Executive Director of The Permanente Medical Group, the professional arm of Kaiser Permanente in Northern California, where he was responsible for the areas of health policy, government affairs, quality, utilization, medical-legal affairs and research.

Articles of Federation—installed in the Federation governance central authority to further four purposes. They are:

- Joint accountability for quality of care
- Joint accountability for business performance
- Joint responsibility for geographic expansion
- Joint management of business ventures.

Each of these purposes relates to solving the issues which faced the Medical Directors earlier that year: improving financial performance where needed, improving quality of care where needed, and creating new KP business competencies to support and expand the KP organization.

The Articles of Federation created for the new Federation a balanced and representative governing body—the Executive Committee—consisting of an Executive Director and four Medical Directors. Executive Committee decisions are subject to review by the Medical Directors (Fig. 1) as a group. All this and more is delineated in the Articles of Federation and in the Federation Operating Agreement, which were approved in December 1996 by all Medical Directors and Permanente Boards of Directors and are available for anyone to read.

The first meeting of the Executive Committee was convened on February 5, 1997. The first four members of the Executive Committee were Dr. Oliver Goldsmith (Chair), a gastroenterologist and Executive Medical Director of Southern California PMG; Dr. Harry Caulfield, a cardiologist and Executive Director of The Permanente Medical Group (TPMG); Dr. Allan Weiland; and Dr. Adrian Long, an emergency physician and Executive Medical Director of the Mid-Atlantic PMG. In April 1997, I was appointed and approved as Executive Director and fifth member of the group.

The Permanente Company

Early in the planning of the Federation came the realization that managing both governance and business issues would be too complex for a single organizational unit. A national Permanente business would need to serve the needs of the sponsor PMGs while maintaining a degree of independence not typical of physician-directed businesses. Thus was born The Permanente Company (PermCo); a limited-liability company owned by the Federation's member PMGs and registered in January 1997. PermCo has a separate Board of Directors who are confirmed by vote of the Medical Directors. As Executive Director of the Federation, I serve as the Chair of the PermCo Board. Other current members are Irwin Goldstein and Bruce Perry; Toby Cole, an internist and Executive Medical Director of the Colorado PMG; and Robert Ridgley, Chairman of Northwest National Gas Company and a member of KFHP's Board of Directors. PermCo's Chief Executive Officer (CEO) and one additional Board member remain to be appointed.

What is the difference between the Federation and PermCo? They are separate but related entities, each with a distinct purpose (Fig. 2): The Permanente Federation develops policy and provides governance and oversight for the purposes outlined in the Articles of Federation; PermCo builds and manages the business functions of the Federation.

Fig. 1. The Permanente Federation Medical Directors. From left to right. Including Medical Group (back row) W. Harry Caulfield, MD, TPMG [Executive Committee member]; William Gillespie, MD, Texas; Melvin Mulder, MD, Ohio; Francis (Jay) Crosson, MD, Permanente Federation [Executive Committee member]; Adrian Long, MD, Mid-Atlantic [Executive Committee member]; (middle row) Donald McGuirk, MD, Mid-America; Peter Lee, MD, North Carolina; Oliver Goldsmith, MD, Southern California [Executive Committee member]; Stacy Lundin, MD, Northeast; Bruce Perry, MD, Southeast; Allan Weiland, MD, Northwest [Executive Committee member]; (front row) Toby Cole, MD, Colorado; Michael Chaffin, MD, Hawaii

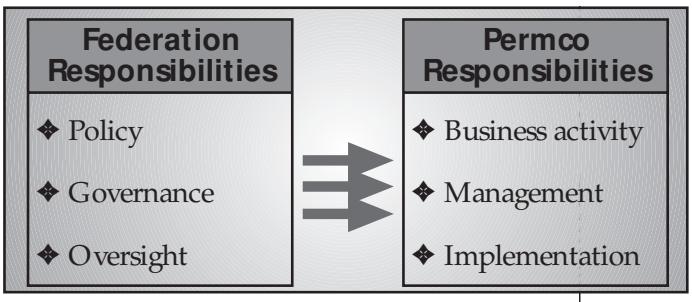

Fig. 2.

What business functions was PermCo intended to build? First, PermCo will build physician practice management capabilities—services (such as supplied by Phycor or MedPartners Mulliken) needed to improve Permanente practice and to create new Permanente delivery systems in expansion areas. PermCo teams initially began helping to improve Permanente practice in North Carolina and Ohio. Working with KFHP, PermCo teams began exploring expansion opportunities in Chicago and New York in March 1997.

Second, PermCo will build a new capability to enable PMGs to explore business diversification opportunities. An advisory group including physicians from each PMG began working last Fall to examine sound business opportunities which could strengthen Permanente capabilities, further the mission of our organization, and provide new employment opportunities for PMG physicians and an opportunity for them to build value over time.

Third, PermCo will be the place where Permanente physicians build information systems to provide the clinical and business support we will need in the future. In partnership with KFHP, a team of Permanente medical informatics specialists will direct the multiyear national project designed for this purpose. We will hear more from PermCo in the future.

Fig. 3. Signatories to the National Partnership Agreement Memorandum of Understanding, February 5th, 1997. From left to right, including titles: Back Row: Jerry Fleming, Senior Vice President, Administrative Services, California Division, Kaiser Foundation Health Plan; Jim Williams, Senior Vice President, Strategic Development & Human Resources, Kaiser Foundation Health Plan; Toby Cole, MD, Executive Medical Director, Colorado Permanente Medical Group; Allan Weiland, MD, Medical Director, Northwest Permanente; Richard G. Barnaby, President and Chief Operating Officer, Kaiser Foundation Health Plan; Irwin Goldstein, MD, Associate Medical Director, Southern California Permanente Medical Group; Ian Leverton, MD, Executive Director, Permanente Interregional Consultants; Adrian Long, MD, Executive Medical Director, Mid-Atlantic Permanente Medical Group.
Front Row: Susan Porth, Senior Vice President, Corporate Services and Chief Financial Officer, Kaiser Foundation Health Plan; Francis J. Crosson, MD, Executive Director, The Permanente Federation; David M. Lawrence, MD, Chairman & Chief Executive Officer, Kaiser Foundation Health Plan; W. H. Caulfield, MD, Executive Director, The Permanente Medical Group; Oliver Goldsmith, MD, Executive Medical Director, Southern California Permanente Medical Group; Robert Crane, Senior Vice President, Interdivisional Services, Kaiser Foundation Health Plan.

The National Partnership Agreement

Our 50 year partnership with KFHP in recent years has been strained: Kaiser Permanente has not been immune from market pressures, and this has taxed the patience of both partners. Some felt that mutual exclusivity was threatened by KFHP'S acquisitions. By mid-1996, the processes for coordinated national decision-making were not functioning smoothly. In the Fall of that year, Harry Caulfield as Chair of the medical directors and David Lawrence as CEO of KFHP Health Plan commissioned a group—the National Partnership Agreement Group (NPAG)—to create an agreement which would revitalize the partnership and lead to a more confident organization, improve organizational performance, and help reestablish Kaiser Permanente as the standard for health care delivery in this country. The group consisted of myself, Goldstein, and Weiland representing Permanente; and Jerry Fleming, Robert Crane, and Jim Williams, all Vice Presidents of KFHP. NPAG met intensively over a three month period from mid-November 1996 to early February 1997.

On February 4 and 5, 1997, the leaders of both the Permanente Federation and KFHP met in San Francisco to receive NPAG's recommendations. On February 5, all parties (Fig. 3) signed a memorandum of understanding which, in May 1997, led to a final agreement and contract between the parties.

The National Partnership Agreement established:

- a joint KP statement of purpose (aspiration)
- the contractual basis for national mutual exclusivity
- agreement to build a common national strategy, directed by a joint strategy group called the Kaiser Permanente Partnership Group (KPPG)
- joint decision making for geographic expansion, information technology development, business venture development, and other policy areas
- the Care Management Institute to develop national disease management capabilities

- a service contract between KFHP and PermCo for geographic expansion, performance improvement, and information technology development.

The National Partnership Agreement became effective on June 1, 1997. KPPG began to meet in July 1997, and most of the joint decision-making bodies will be in place by Fall. As strange as it might seem for an organization as large and as old as ours, this agreement marks the first time that many of these issues have been formally addressed and codified. It is an important start to an improved Kaiser Permanente. ❖

By Francis J. Crosson, MD

Creating the Future of Kaiser Permanente: Critical Strategic Choices

The world of medicine is changing around us. Some say it is falling apart. Our profession, having lost the economic reins of medicine, is in chaos. Most of us joined Kaiser Permanente because we thought it offered something different. For many it was safety, stability and the freedom to practice our profession free from the business concerns of medicine. Some feel that those qualities have been lost in Permanente at present. Some is perception, some is fact.

How should we view the future then, for Permanente physicians? Should we push to expand Kaiser Permanente geographically or should we circle our wagons around our existing Medical Groups, work hard, and hope for the best? What, of value, actually have we built all these years? Are group practices outmoded? Are networks the future recipe for success? Does Kaiser Permanente stand for anything special? Should we continue to strengthen our partnership with Kaiser Foundation Health Plan or build a future based on a friendly but merely contractual relationship with them? Does anyone outside of our organization care any more what we do or don't do in Kaiser Permanente?

The creation of the Federation and PermCo, and the National Partnership Agreement with Health Plan are first steps along the way to answering these questions and creating a strategic plan. The plan will determine the degree of success of Kaiser Permanente and the nature of our professional lives in our Medical Groups.

Let's examine some of the business and professional issues that will need to go into making up that strategic plan.

Geographic Expansion

The case for expansion seems simple. We have always expanded Kaiser Permanente. We believe we offer something of value to people. As many people as possible ought to have access to us. Furthermore, growth keeps us vibrant. It provides an appropriate mix of members and allows us to hire new physicians and employees with important skills. It provides for economies of scale that improve our efficiency.

Also, as the argument goes, the best defense is a good offense. We are facing ever larger competitors. If we fail to grow sufficiently, we may be disadvantaged in the future in many ways that we cannot predict now. In addition, some regional and national employers are asking us to provide broader geographic coverage or lose contracts for their members.

It is not so simple. Expansion costs money which could be used to run ongoing operations. It also requires a lot of management time and attention, which is currently in short supply. In addition, in parts of the country, successful growth is seen to be related to the "choice" issue. We know we need to excel in price, access, service and quality to succeed. In some places, however, the perception that our group model does not allow members sufficient choice of physicians has hindered our growth. The "network" model of care has seemed more attractive because, in addition to greater perceived choice, it comes with lower development costs.

But if Kaiser Permanente evolves by network development, will it still be Kaiser Permanente or something else? What characteristics does a Permanente delivery system have to have to retain the essence of the special value that Permanente physicians bring to Kaiser Permanente and its members?

"Growth keeps us vibrant. It provides an appropriate mix of members and allows us to hire new physicians and employees with important skills. It provides for economies of scale that improve our efficiency."

"Group practice should remain the core of Permanente Practice. Network arrangements should be concentrated and focused on physicians willing to develop long-lasting, significant and special relationships with us and our patients."

Permanente Practice

Despite our flaws, we have gotten it right for years. Permanente Medical Groups have shown that physicians can successfully manage the quality and costs of health care and do so on a sustained basis. We do this by creating an environment in which physicians can coordinate member care without undue interference. This is not an accident. It happens because we have built the solid foundation that allows it to happen, one doctor, one patient at a time. Our strength is appropriate *Coordination of Care.*

The base of the foundation of that strength is the principle of *Group Responsibility.* A group of physicians share responsibility for a group of members. This responsibility includes the quality of care, the quality of service and the cost of care, because ultimately the costs are borne by the members. As individual physicians, then we have to worry not only about what we do for each member but also how we organize ourselves to care for everyone who is a Kaiser Permanente member. We work together for the good of these people. We don't compete with each other. We don't seek advantage over each other specialty by specialty.

In order to manage our responsibilities, we have created *Self-Governance.* Group decisions are made by representative processes. All of our physicians have the right to a voice in Group affairs and to economic and professional due process. This is the second foundation building block.

Only a self-governing group of physicians is capable of *Self-Management.* Self-management means that Permanente physicians decide the basis for the care of each patient, together with that patient and usually on the spot. There are no insurance clerks to call for permission to hospitalize our patients in Permanente practice. In fact, no insurance company at all stands between the doctor and the member. We create our own drug formularies and our own guidelines based upon what is scientifically correct and up to date.

If you believe that this model of Permanente Practice is correct, and is what separates us from our competitors, then we should not lose this foundation. It means that as we redesign ourselves and design the future expansion of Kaiser Permanente, we must continue to organize our delivery system according to these principles. Does that imply only a closed panel group model? Not at all. But it does mean that group practice should remain the core of Permanente Practice. Network arrangements should be concentrated and focused on physicians willing to develop long-lasting, significant and special relationships with us and our patients. Several of our Medical Groups are currently developing just such network models—ones that incorporate the elements of Group Responsibility, Self-Governance, Self-Management and Coordination of Care. We are still learning how this will really work outside of the pure group setting. But I believe that there are many physicians in new areas of the country, aghast at the nature of the worst of managed care, who would love to ally with the physicians of Permanente. We could help our profession by demonstrating that ethical physician-led delivery models can be successful enterprises. We may only need to lead the way.

The Value of Kaiser Permanente

For fifty years we have had a partnership with a not-for-profit organization called Kaiser Foundation Health Plan. It has not always been an easy relationship. Recently the partnership has been quite strained by the economic pressures on the health care industry. Is this relationship worth preserving or is it an anachronism in the world of health care high finance? Some medical groups such as Mullikin have turned to Wall Street and investors for the resources to expand and improve. Should Permanente do so also?

Health care is different from other businesses. It affects everyone in the society and in a deeply personal way. The country is just now coming to realize its discomfort with the real mix of medicine and profits, Wall Street style. Columbia HCA, once the miracle of business discipline, is now a public spectacle of greed and malfeasance. Physician-led, investor-owned, national corporations may be next.

The partnership of strong Medical Groups and socially conscious not-for-profit Health Plan has been a winning combination in the past. It has provided good care for the members, stable and satisfying professional careers for the doctors and return of excess revenue to those members either in better facilities and equipment or reduced rates. Both the Health Plan and The Permanente Federation need to remember the moral strength we derive from this commitment to the not-for-profit principle, both internally in how we conduct ourselves and externally in how we are viewed by society. Ours may not be the only good model but it is an ethically sound one that many will wish to be associated with now and in the future.

Developing Our Strategic Plan

One result of the National Partnership Agreement (see accompanying article) was the creation of the Kaiser Permanente Partnership Group (KPPG). The KPPG consists of the senior national leaders of both Kaiser Foundation Health Plan and The Permanente Federation. Its primary job is strategy development. The KPPG is chaired by Dr. Oliver Goldsmith, a gastroenterologist, and Executive Medical Director of the Southern California Permanente Medical Group. Dr. Allan Weiland, an obstetrician-gynecologist and Executive Medical Director of the Northwest Permanente Medical Group and Mr. Robert Crane, Vice President of Kaiser Foundation Health Plan have created an intensive work process designed to resolve the issues discussed above as well as others. The work is well underway.

What can each of us do when we realize the organization is faced with such critical and difficult issues to resolve? The most important quality for all of us to have right now is self-confidence. We are a great and noble organization. What we have created is special and good. We cannot let our flaws and mistakes and the criticism of others weaken our convictions about the basic value of Kaiser Permanente and Permanente Practice. With self-confidence and hard work we will not fail. ❖

By Bruce A. Bishop

Health Care Consumer Protection and Physicians: Be Wary What You Ask For

Introduction

Suppose that your first patient of the morning greets you by asking how much you earned last year and what specific training and experience you have in treating her condition? What if she asks for a copy of the written protocol you intend to follow in treating her condition and for the opportunity to review your treatment plan beforehand? Before you even start the examination, what if she demands a complaint form that could be filed with the state Insurance Commissioner in case she's dissatisfied with the way she's treated?

Sound preposterous? It probably is. But those are the kinds of disclosures and protections state and federal legislators are being told that consumers need to be wise and happy patients. And who's responsible for planting such fantastic notions? It's probably not the culprits you'd expect. Nor would Oregon and Washington, where managed care systems have thrived for decades, seem likely fields for such ideas to take root.

Following several years of extensive health care reform efforts in Oregon and Washington, by 1997 both states moved their primary policy targets from containing costs and expanding coverage for the uninsured to the concerns of providers. While not a cataclysmic change, this shift occurred when physicians and other providers reacted to the heat they were feeling from care management strategies that sought better care for less money by demanding that government protect their clinical and financial interests. The rhetoric of consumer and patient benefit demonized managed care in the public eye, fanned "anti-managed care" sentiments, and undermined patient confidence—not just in insurance bureaucracies, but in physicians and other caregivers themselves.[1]

This article summarizes recent health care consumer protection legislation in Oregon and Washington State. Both states modeled their legislation after proposals from the National Association of Insurance Commissioners (NAIC), the private association that represents state insurance regulators. But these models aren't just about "insurance." Because they strike close to the heart of the clinical practice of medicine, directly affecting the relationships between physicians and their patients and among physicians, they should be of considerable concern to physicians who care for patients and their profession. And because the managed care market is so advanced in these two states, what occurs in these legislatures should be instructive to physicians in other states where Permanente physicians practice.

National Patterns For Health Care Consumer Protection

The nation's health policy cauldron came to a boil in 1993-94 with President Clinton's push for enactment of his Health Security Act. Seeking a policy agenda (other than the President's) to support, the American Medical Association (AMA) developed a model state law that sought "strong policy positions calling for regulation of managed care plans to assure fairness to patients and providers." This strategy, called "Patient Protection" by the AMA (and "Physician Protectionism" by detractors), contained four elements:

- "Patient Protection" standards to assist consumers in making health plan selections. These standards encompassed issues like benefit coverages and exclusions, prior authorization and other review requirements, financial arrangements and provider contracting, and enrollee satisfaction.
- "Physician and Provider Fairness" standards addressing credentialing, involvement in medical policy development, contracting restrictions and medical information confidentiality.
- "Safeguards in Utilization Review" including federal standards for utilization review programs and for certain medical decisions.
- "Patient Choice" including mandatory "point-of-service" coverages for "limited access" plans, but also mandating that patients have a range of health plan options, including HMO and other managed care plans, available to choose from.[2]

Like viruses, these ideas spread quickly through state and federal legislative bodies. Although attacked by organizations like the Group Health Association of America (now the American Association of Health Plans), they were validated by other groups, including the National Association of Insurance Commissioners (NAIC). Spurred to reaction, NAIC shifted its emphasis from regulatory concerns over financial matters and insurance reform to consumer disclosure and protection activities into high gear.[3]

By 1996, NAIC had produced state "model" laws addressing most of the AMA's concerns, including quality assessment and improvement, managed care plan network adequacy, health carrier grievances, and utilization review. In addition, NAIC also focused on models involving health information confidentiality, data reporting, and consumer disclosures. These recommendations set a foundation for a state regulatory framework addressing consumer concerns with health care. At the urging of physicians and regulators, Washington State and Oregon jumped on this new regulatory bandwagon.

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"Both Washington and Oregon reform strategies relied heavily on managed care, particularly group, staff, and independent practice model HMOs."

Northwest states could have joined—or even led—other parades. In contrast to NAIC's state regulatory approach, the National Committee for Quality Assurance (NCQA) offers a nongovernmental approach to improving health services through a voluntary accreditation program for health care systems. As explained to a Washington State legislative committee in January 1997:

> NCQA's mission is to provide information that enables purchasers and consumers of managed health care to distinguish among plans based on quality.
>
> We do not see ourselves as a replacement for government oversight of health plans. Instead, we view our work as complementing the function of government by empowering purchasers, both private and public, individual and commercial, with information to guide choice based on both cost and quality. Absent reliable information on health plan quality, purchasers and consumers will buy on price alone.[4]

While covering many of the same issues as the NAIC model laws, the NCQA accreditation process focuses on six categories of standards for managed care systems, including quality improvement, physician credentialing, members' rights and responsibilities, preventive health services, utilization management, and medical records.[5]

By early 1997, Kaiser Permanente also had drafted detailed reform principles that addressed a blend of consumer and provider protections reflecting both NAIC regulatory and NCQA accreditation approaches. Kaiser Permanente's recommendations address access, choice of health plans, confidentiality, continuity of care, health plan disclosure, emergency care, experimental treatment, drug formularies, loss ratios, grievances, nondiscrimination, out-of-area coverage, performance measurement and data reporting, provider communication with patients, provider credentialing and statutory contract rights, provider reimbursement, quality assurance, and utilization management.

Northwest Cycles of Health Care Reform

Over most of the past decade that this author has tracked state health care legislation in the Pacific Northwest for Kaiser Permanente, public officials' concerns with health and medical care issues have focused principally on two facets—cost and access, and they've responded with market or regulatory strategies.

In the 1980s, both Oregon and Washington had elaborate "health planning" systems that relied heavily on certificate-of-need programs and health care cost reporting systems to control health care costs.[6] By the end of the 1980s, market strategies had moved to center stage, and most regulatory controls were shelved, either directly by repeal of their authorizing laws or indirectly by limiting the fiscal resources available to operate them. Whether these regulatory programs had worked or not, they were largely replaced with concerns about access to services, particularly for the uninsured.

More recently, Washington State and Oregon have gained national reputations for enacting and implementing innovative health care reforms. In 1987, for example, Washington established its Basic Health Plan (BHP), a state-funded program to subsidize health coverage for low-income residents. In 1989, Oregon created the Oregon Health Plan (OHP), substantially increasing the number of Oregon families eligible for Medicaid while also mandating that all employers provide health benefits coverage.[7] In 1993, Washington adopted a landmark "managed competition" reform to achieve universal coverage; Oregon obtained federal approval to make its expanded Medicaid program a reality. Both of these reform strategies relied heavily on managed care, particularly group, staff, and independent practice model HMOs. In fact, it's probably safe to say that neither state could have advanced its expanded health care access programs without such delivery systems being both well-established and willing participants.

The Washington State Experience

Washington State's recent health policy ventures help to illustrate how provider and purchaser conflicts can affect state health policies, swinging them from one extreme to another. The state reached its apex as a health policy innovator in 1993, when the Health Services Act massively overhauled the state's systems for delivering and financing medical care. This law, in many respects, attempted to blend both market and regulatory approaches and, by and large, garnered support from most health care interest groups in the state. When, during the summer and fall of 1994, national health care reform efforts failed and major changes in federal and state legislative control occurred, Washington State's reforms fell from favor, particularly with the business community, which objected to the law's expectation that all employers would be required to offer health benefits to employees and their families.

After Washington health policymakers in 1995 dismantled the 1993 reforms, they left in place two features believed to be popular. The first involved making individual health coverage more accessible. The

second required that health plans offer "every category" of licensed providers' services. While they had been minor matters in legislative debates initially, both of these surviving issues took on new significance when the 1997 Washington legislature turned to protecting patients and providers.

In 1996, a Washington Deputy Insurance Commissioner active in the NAIC's deliberations on new managed care regulations announced that the office was considering the adoption of new administrative policies regulating managed care. To get input on the rules, three panels were created, one including health care providers; one including purchasers and consumers; and one including health insurers and health plans. Using the NAIC model laws as a starting point and meeting independently, the groups were invited to adapt the NAIC models to their liking. By fall, it was evident that the process was unworkable, and with the legislature's 1997 session approaching, this administrative venture fizzled.

In January, legislative attention turned to HB 2018, a proposal that touched most of the areas of managed care and health care consumer protections embraced by the AMA and the NAIC models. Although it started its legislative life as a "marketplace stabilization" proposal that attempted to modify the state's individual market reforms, it quickly attracted other amendments. Within the first month, the legislation also addressed utilization review, grievance procedures, and provider network requirements for health carriers. Subjected to extensive wrangling throughout the session, the legislation was approved and sent to Governor Locke. Instead of accepting the legislative compromises, the governor vetoed most portions of the law, including the new requirements for managed care disclosures and standards. His veto message noted:

> "I have vetoed sections 101 through 108 and section 111, which create standards for grievance procedures, utilization review and access plans for health carriers. Those sections "deem" compliance with the national organization standards of the National Commission on [sic] Quality Assurance (NCQA) to be sufficient to meet the standards contained in the bill. This would be a direct violation of Woodson v. State, 95 Wn.2d 257 (1980), which prohibits delegation of legislative power to nongovernmental entities ... I am not opposed to looking at the use of national standards on these issues in a constitutional manner."

Just recently, the Washington Insurance Commissioner's office has published a notice that it's intending to gear up its rulemaking apparatus this fall to address managed care issues, indicating that there will be at least one more round of discussions on the topic.

The Oregon Experience

Oregon's health care reforms, while often controversial, generally have been less battered by political wind changes than Washington's. From its legislative origins in 1989, OHP efforts to expand health coverage have generally enjoyed broad support from health care interests[8] and legislators in both parties.[9] In 1992, the Bush Administration refused to grant Oregon the waivers necessary to launch the OHP expanded Medicaid program, citing concerns that its proposed "prioritization" of benefits could be detrimental to the disabled. Early in 1993, however, the Clinton Administration concluded otherwise, allowing the program to become operational in 1994.

During the 1995 legislative session, one of the most contentious legislative debates over health care policy was spearheaded by the Oregon Medical Association. The OMA introduced its version of "patient protection" legislation as SB 979 and proposed that the state regulate matters involving medical service contracting, enrollees' changing primary care physicians, mandatory "point-of-service" coverages, grievances and appeals, use of medical records for peer and utilization review purposes, and the setting of utilization review standards. Although it became law, the bill was poorly drafted[10] and probably has had little substantive impact on or been of any discernible benefit to patients or providers. Nonetheless, this law formed the foundation for Oregon's debates in 1997 to protect consumers of health services.

In the fall of 1996, while three significant ballot measures affecting health care issues were being debated—the tobacco tax, provider compensation, and provider category mandates[11]—the Oregon Department of Consumer and Business Services circulated draft legislation on health care consumer standards. This proposal authorized the department to set standards and disclosure requirements for managed care plans by administrative rule. When the 1997 Oregon Legislature convened in January, the DCBS bill (SB 96) was only one of several offered to the legislature. In the group were legislative proposals from at least three individual legislators, including SB 21, sponsored by State Senator Jeannette Hamby (R-Hillsboro); from Oregon's medical and nurse associations, and from a national organization of women legislators. To reconcile these various proposals, the leaders of the two legislative committees responsible for health care issues agreed to convene a work group

composed of providers, employers, consumers, and insurers, asked the state Insurance Commissioner and OHP Administrator as co-chairs of the group to draft legislation, and gave the group eight weeks for the task. In response to this "opportunity," the work group proceeded to chew over a plateful of health care consumer protections, ultimately producing amendments that became SB 21.

If one measures a legislative strategy's success by the number of votes it generates, this process worked. Once the work group had finished its deliberations, the amended bill was considered briefly in committee and by the Senate and House, gaining unanimous approval without amendment. Signed into law by Governor Kitzhaber before the legislature even adjourned its regular session, SB 21 became Chapter 343, Oregon Laws 1997. In July, an advisory committee, composed of many of the same interests as participated in the legislation's development, was convened to make recommendations on implementation rules necessary to make the law work. These rules will be the subject of public hearing this fall.

"While this language was probably intended to 'protect' physicians from nonphysician reviewers, it intrudes as well on most physician decisions, consultations and referrals."

Why "Consumer Protections" Matter to Physicians

Despite the different outcomes in 1997 between Washington's and Oregon's consumer protection legislation, the substance of both states' bills are remarkably similar.

For example, both bills contained language adopting a "prudent layperson" standard for health plan coverage of emergency medical services. (This provision was one of the few not vetoed in the Washington bill.) Similarly, both bills addressed consumer grievance and appeal practices, utilization review practices, and provider network disclosure requirements.

1. *Utilization Review.* In Washington's HB 2018, the legislature established standards for "utilization review," defined as the:

> "... prospective, concurrent, or retrospective assessment of the necessity and appropriateness of the allocation of health care resources and services of a provider or facility, given or proposed to be given to a patient or group of patients."

As drafted, this provision would apply not just to "utilization review" activities by insurers and other "nonprovider" organizations but to physicians and medical groups as well. Among other requirements that would have become Washington law had the Governor not vetoed these provisions would have been a mandate that: "Review organizations shall maintain a documented utilization review program description and written utilization review criteria based on reasonable medical evidence.... Review organizations shall make pertinent criteria available upon request to the participating provider involved in a specific case under review."[12]

"These provisions may also have the effect of requiring physicians to discuss with patients a number of matters involving contracts the physician and/or medical group has, not only with insurers but with other physicians as well."

While this language was probably intended to "protect" physicians from nonphysician reviewers, it intrudes as well on most physician decisions, consultations and referrals.

Oregon's SB 21 also sets "utilization review" standards, although they are definitionally limited to insurers and agents to whom they've delegated such reviews. The Oregon law requires that:

> "Any patient or provider who has had a request for treatment or payment for services denied as not medically necessary or as experimental shall be provided an opportunity for a timely appeal before an appropriate medical consultant or peer review committee."[13]

The law does not specify procedures that must be followed for such appeals.

2. *Physician "Gag" Clauses.* Considerable national attention has occurred in recent years over insurer contracts with physicians that prohibit (or "gag") physicians from discussing certain treatments with their patients. Oregon's SB 21 specifies in section 15 that insurers not "terminate or otherwise financially penalize a provider for":

> "(1) Providing information to or communicating with a patient in a manner that is not slanderous, defamatory, or intentionally inaccurate concerning:
>
> (a) Any aspect of the patient's medical condition;
>
> (b) Any proposed treatment or treatment alternatives, whether covered by the insurer's health benefit plan or not; or
>
> (c) The provider's general financial arrangement with the insurer.
>
> (2) Referring a patient to another provider, whether or not that provider is under contract with the insurer. If a provider refers a patient to another provider, the referring provider shall:
>
> (a) Comply with the insurer's written policies and procedures with respect to any such referrals; and
>
> (b) Inform the patient that the referral services may not be covered by the insurer."

Again, while these provisions are undoubtedly motivated by the desire to protect physicians from undue interference in their medical decisions from insurers' cost-containment strategies, they may also have the effect of requiring physicians to discuss with patients a number of matters involving contracts the physician and/or medical group has, not only with insurers but with other physicians as well.

3. *The Adequacy of Provider Networks.* A third example of the ways state "consumer protection" standards may affect physicians' professional practices involves "network adequacy," a topic addressed by both Oregon's and Washington's 1997 legislation. Sections 109 and 110 of Washington's HB 2018 (provisions vetoed by the Governor) only would have directed that a study be conducted on the need for network adequacy requirements and specified the topics to be addressed. Section 111 (also vetoed) would have required "access plans" to address network issues, by providers' " ... license, certification, and registration type and by geographic location...." Oregon's network adequacy requirements are contained in SB 21's section 3 and require disclosure to enrollees of: "Information about provider, clinic and hospital networks, if any, including a list of network providers and information about how the enrollee may obtain current information about the availability of individual providers, the hours the providers are available, and a description of any limitations on the ability of enrollees to select primary and specialty care providers."[14]

The development of specific requirements for satisfying these requirements is one of the tasks that will be addressed in rulemaking this fall.

Conclusion

Who's better off now that Oregon and Washington State health policymakers have addressed consumer protection and managed care standards? In all frankness, Washington's citizens probably are because that state's legislation was nullified by its Governor's veto pen while Oregon's law is just beginning to take shape. Whether either state's ventures in this area will take to heart the physicians' credo to "Do no harm" remains to be learned. The risks seem great that state legislative decisions like Oregon's and Washington's attempts to protect health care consumers will end up falling far short of their intended goals, creating unexpected results and burdening physicians with more regulation. ❖

"The risks seem great that state legislative decisions like Oregon's and Washington's attempts to protect health care consumers will end up falling far short of their intended goals, creating unexpected results and burdening physicians with more regulation."

References

1. For example, an article in the newsletter of the Multnomah County Medical Society, describing Oregon's 1995 "patient protection act," was headlined "New law takes stab at managed care." (The Scribe, August 4, 1995.) Blurring important differences between providers and patients, the Oregon Medical Association claimed that the law would "set up basic rules about how patients and physicians are treated in managed care." Similar salvos were being fired at managed care in the general media.
2. American Medical Association, "Patient Protection Act - Model State Legislation," memorandum from Kelly. C. Kenney, Assistant Director, Department of State Legislation, to State Legislation Contacts, June 30, 1994.
3. At least in part, this was probably done to shore up state insurance regulators' oversight over health plans, since some versions of federal health reform being debated in 1994 would have transferred many regulatory responsibilities from state to federal officials.
4. National Committee for Quality Assurance, "Statement for Work Session on Managed Care Regulation," from Stephen N. Lamb to Senator Alex Deccio, Chair, Senate Health and Long Term Care Committee, January 14, 1997.
5. Ibid.
6. In fact during this period, Washington had one of the few hospital rate-approval mechanisms in place in the country.
7. Interestingly, physician-legislators spearheaded both of these initiatives. The BHP's "father" was then-State Senator, now U. S. Representative Jim McDermott, MD. The OHP was championed by then-State Senate President, now Oregon Governor, John Kitzhaber, MD.
8. Key and consistent supporters of the Oregon Health Plan have included provider organizations like the Oregon Medical Association and the Oregon Association of Hospital and Health Systems; business interests, including Associated Oregon Industries; and health carriers, including Kaiser Permanente and Blue Cross and Blue Shield of Oregon.
9. Designed by then-Senate President John Kitzhaber, a Democrat, the Oregon Health Plan was sustained by Senator Greg Walden, a Republican, in 1993, during the time that Kitzhaber left the Senate in 1992 and became Governor in 1995. Ironically, Walden had opposed the Oregon Health Plan in 1989; as a first-term minority-party state representative, Walden unsuccessfully attempted to strip the "employer mandate" from the Plan. That feature of the plan was abandoned entirely in 1995, after Congress failed to allow states to require employers to offer health benefits.
10. For example, SB 979's provisions on "medical service contracts" refer to "the other party" to the contract without ever defining who such parties are. Similarly, the law subjected insurers' contracts with providers to enforcement by state insurance regulators, but provider contracts between physicians or between hospitals and physicians were enforceable only in court, resulting in virtually no additional protection for contracting providers.
11. Ballot Measure 44 proposed to increase tobacco taxes substantially in order to maintain and expand the Oregon Health Plan. Ballot Measure 35 proposed to prohibit certain types of provider compensation arrangements, possibly including "capitation." Ballot Measure 39 proposed to require "all categories" of health care providers be available through all health plans. Oregon voters approved the tobacco tax, but rejected the other two measures.
12. HB 2018, State of Washington, 1997 Regular Session, section 102.
13. Section 4, subsection (2)(c).
14. SB 21, section 3, subsection (5)(L).

By Jon Stewart

Permanente Joins Campaign for Consumer Protection

Concerned about the torrent of new and often conflicting health care regulatory measures issuing from state legislatures, Kaiser Permanente and a unique coalition of health plans and national consumer groups launched a bid to seize the initiative with their own consumer protection campaign at a high profile Washington, DC, press conference in late September. The event featured the release of an 18-point set of proposed standards designed to bring major improvements to health care consumers while resulting in a reduced, less costly and more equitable regulatory regime for health plans and providers.

"We struggled throughout the process," said Dr. Parsons, "to ensure that the principles reflect our most fundamental values about the practice of medicine ..."

What sets the Kaiser Permanente standards apart from other recent health care industry proposals are the critical elements of scope, enforcement and sponsorship. Most important, the coalition came down heavily in favor of national standards, as opposed to state-by-state regulations, and in favor of legally enforceable standards, as opposed to voluntary ones. The coalition partnership between stakeholders who are often on opposite sides of regulatory issues—health plans/medical groups and consumer groups—was also expected to give added weight and credibility to the initiative. As Ron Pollack, President of Families USA, said, "These principles are a very constructive and real expression of care by the three HMOs. They are likely to lead to meaningful protections for health care consumers."

The support of consumer groups may be especially important in light of the fact that one of the coalition's target audiences was the 35-member Presidential Commission on Consumer Protections and Quality in the Health Care Industry (of which Kaiser/Group Health President and Chairman Phillip Nudelman is a member). The coalition directed a copy of the principles, with a cover letter, to the commission prior to its concluding its own work on a so-called "Consumers' Health Care Bill of Rights," hoping to influence the nature of those guidelines. Kaiser Permanente representatives also promised to work with interested legislators to craft bills based on the coalition's principles.

The coalition, which began negotiating the standards among its members last February, also includes Group Health of Puget Sound (whose participation preceded its affiliation with Kaiser Permanente), and the Health Insurance Plan of New York. The consumer partners included Families USA and the American Association of Retired Persons (AARP), both of which are highly visible actors in state and national health care policy and regulatory affairs.

For Kaiser Permanente, negotiations over the principles were handled primarily through the Government Relations department, with oversight and input from members of the Health Policy Committee, whose membership includes senior Permanente Federation leaders, such as Executive Director Jay Crosson, MD, and the Associate Executive Director for Health Policy Development, Don Parsons, MD. According to Dr. Parsons, who participated directly in the negotiations, the issue of the integrity of the physician-patient relationship was always central to every discussion. "We struggled throughout the process," said Dr. Parsons, "to ensure that the principles reflect our most fundamental values about the practice of medicine and that they would in no way interfere or influence those values or how decisions about medically necessary and appropriate treatment are made by physicians in consultation with their patients. It has always been our position that neither health plans nor the government should intrude upon these decisions, and we worked hard to ensure that these principles would not violate that commitment."

The 18 proposed principles cover a broad range of consumer health issues, including accessibility of services, choice of health plans, confidentiality of information, continuity of care, and disclosure of information on experimental care, drug formularies, loss ratios, performance and quality measures, provider financial incentives, and other sensitive issues (see summary, page 58). Many of the proposed standards are already being met in some or all Kaiser Permanente Divisions and are already embodied in some states' laws, while others would represent a stretch for the program in many divisions. It should be emphasized, however, that for the time being, the principles are just that: goals that have been endorsed by the program's senior leadership. Some have already been implemented unilaterally; some have been adopted by particular divisions in accordance with state laws; some could be pursued programwide, with or without mandates; and others, such as choice of health plans, require federal legislation. In addition, it is likely that any legislative mandates based on the principles would call for phased implementation over a number of years.

A small number of the principles could only be implemented on a universal basis among all health plans in order to avoid adverse selection consequences. For instance, the proposal to submit to binding external decisions about coverage for experimental treatments—one of the top issues for consumers—could have serious cost consequences resulting in adverse selection by purchasers if implemented

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unilaterally or by only a few plans. In such a situation, plans that chose not to implement the principles could easily take unfair advantage of the more socially responsible plans that did implement them. The objective was to provide all parties the same level playing field in the interests of equity for all plans, their members, and their providers.

Significantly, the proposal does not include standards on one of the most difficult issues for both consumers and health plans and/or providers: member grievances and appeals. Those issues, which were included in Kaiser Permanente's original draft of principles, were taken "off the table" when the plans and the consumer groups failed to reach timely agreement, although all the parties promised to continue to work toward resolution of the sticking points. The coalition also decided to continue working on another vexing question: the appropriate government agency or agencies for oversight and enforcement of the proposed standards. At present, no federal agency is adequately equipped to take on the role, and it is likely that state regulators will jealously guard their prerogatives. Indeed, much of the oversight function might actually be done more efficiently at the state level, assuming common standards of monitoring and enforcement are observed.

To many observers, the most surprising aspect of the initiative is that a group of health plans and their medical group partners would embrace enforceable standards that even the most tough-minded consumer organizations could support. For several years, HMOs (including Kaiser Permanente) have been fighting a rear-guard battle against a growing tide of new consumer-supported health care laws and regulations at the state level. Before adjourning for last summer's legislative recess, state lawmakers passed a record 182 laws on managed care, up from 100 in 1996, according to the National Conference of State Legislatures. Forty states and Congress have passed length-of-maternity-stay laws in the last three years, and 37 states considered mastectomy-stay bills this year alone (though only seven passed).

The impact of the regulations on plans and providers is believed to be even greater than the numbers suggest since many of the measures were comprehensive "bills of rights" covering a broad array of health concerns. Already in 1997, such laws have been passed in 19 states compared with 13 states in 1995 and 1996 combined, and many other states, including California, are anticipating similar initiatives. Congress is also likely to consider a health care "bill of rights" next year, based on the recommendations of the Presidential Commission.

In issuing their own consumer-supported standards and calling for national enforcement among all health plans, Kaiser/Group Health and HIP have moved well into the vanguard of the industry response to consumers' growing demands for safeguards. The more typical health plan strategy has been the approach exemplified by the American Association of Health Plan's "Patients First" initiative in early 1997, which embraced a number of consumer protection principles similar to those of the coalition, but specifically called for voluntary implementation.

Why did Kaiser Permanente and the other plans decide to step out front? Partly, said Steve Zatkin, Senior Vice President for Government Affairs, because it is a role that the program is already familiar with as a result of earlier consumer-interest initiatives, such as last year's promulgation of principles and support for legislation on health plan coverage of emergency medical services (see *The Permanente Journal,* l:l). That initiative, like the consumer protection principles, was largely motivated by an urgent sense that, as Zatkin put it, "It's time to restore some trust in the American health care delivery system. But it can't be done unless virtually all plans are held accountable. If some plans are free to ignore the standards, then the whole phenomenon of managed care bashing is going to continue."

"We think national, enforceable standards will bring more consistency to the regulatory arena," added Zatkin. "By acting nationally, we hope to create a level playing field for plans, greater equity for consumers and providers in different geographic areas, and less costly and burdensome regulation." Zatkin said that in promulgating the principles, Kaiser Permanente is not trying to increase the level of regulation on itself or other plans, but to make regulation "more rational and less duplicative." Today, health plans are regulated by a vast array of various state insurance commissioners and corporations departments as well as by federal agencies like HCFA, the Federal Employees Program, the Labor Department and even the Defense Department (for CHAMPUS).

"We'd love to have all of these agencies singing from the same hymnal regarding health plan standards," said Zatkin.

See summary, next page

"To many observers, the most surprising aspect of the initiative is that a group of health plans and their medical group partners would embrace enforceable standards that even the most tough-minded consumer organizations could support."

"It's time to restore some trust in the American health care delivery system. But it can't be done unless virtually all plans are held accountable. If some plans are free to ignore the standards, then the whole phenomenon of managed care bashing is going to continue."

Summary of Preliminary Statement of Principles for Consumer Protection

The health plans and consumer organizations involved in this effort have identified 18 consumer protection principles to promote quality health care and restore trust in the health care system. Below is a brief summary:

1. Accessibility of Services. To ensure access to quality care, health plans should:

- have enough physicians, specialists, and other providers to provide timely, appropriate care 24 hours a day, seven days a week;
- provide access to specialists, specialty care centers, and out-of-network referrals when necessary, and provide women members with direct access to obstetricians and gynecologists; and
- provide health care materials and services in a culturally and linguistically sensitive manner.

2. Choice of Health Plans. Individuals should be given a choice of health plans.

3. Confidentiality of Health Plan Information. There should be strong protections against improper disclosure by health plans of medical information.

4. Continuity of Care. Members should be allowed to choose their own primary care physician and change their primary care physician at any time. Health plans should promote preventive care, ensure that medical records are complete and available to members and their providers. Members who are being treated for a serious illness or are in the second trimester of pregnancy should be allowed to continue receiving treatment from their physician specialists for up to 60 days when their doctor's contracts are terminated by a plan or when, under their group coverage, they are forced to switch plans.

5. Disclosure of Information to Consumers. Health plans should provide consumers with the following information: a description of the coverage provided and excluded; how to obtain service; the names and credentials of the plan's physicians; a description of the method used to compensate physicians; the systems for managing the use of services; a description of restrictive prescription drug formularies; procedures for receiving emergency care and out-of-network services; use of arbitration; statistics on the numbers of members who leave the plan; and how to appeal decisions, file grievances, and contact consumer organizations or government regulatory agencies.

6. Coverage of Emergency Care. Health plans should cover emergency services, including services provided when a prudent layperson reasonably believes he or she is suffering from a medical emergency.

7. Determinations of When Coverage is Excluded Because Care is Experimental. Health plans should have an assessment process for reviewing new drugs, devices, procedures, and therapies. Plans should also have an external, independent review process to examine the cases of seriously ill patients who are denied coverage for experimental treatments.

8. Developments of Drug Formularies. Health plans that cover prescription drugs and use restrictive formularies should allow physicians to participate in the development of the formularies and provide for an exception process when nonformulary alternatives are medically necessary.

9. Disclosure of Loss Ratios. In order to allow consumers to learn what percentage of their premiums are paid out in medical benefits, health plans should uniformly calculate and disclose their loss ratios.

10. Prohibitions Against Discrimination. Health plans should not discriminate in the provision of health care services on the basis of age, gender, race, national origin, language, religion, socioeconomic status, sexual orientation, disability, genetic makeup, health status, or source of payment. Health plans should develop culturally competent provider networks. Health insurance reform should address discriminatory practices that discourage enrollment of high risk, high cost or vulnerable populations in health plans.

11. Ombudsman Programs. Health plans should cooperate with independent, nonprofit ombudsman programs that investigate members' complaints, help members file grievances and appeals, and provide consumer education and information.

12. Out-of-Area Coverage. Health plans should cover emergency and urgent medical care for members traveling outside the plan's service area within the United States.

13. Performance Measurement and Data Reporting. Health plans should meet national standards for measuring and reporting in areas such as quality of care, access to care, patient satisfaction, and financial stability.

14. Provider Communication with Patients. Health plans should not limit the exchange of information between health care providers and patients regarding the patient's condition and treatment options. Health plans should not penalize providers who advocate for their patients, assist patients with claims appeals, or report quality concerns to government authorities or health plan managers.

15. Provider Credentialing. Health plans should develop written standards similar to those used by the National Committee for Quality Assurance (NCQA) for hiring or contracting with health care providers and facilities. Health plans should not discriminate against providers who treat a dispropor-

tionate number of patients with expensive or chronic medical conditions.

16. Provider Reimbursement Incentives. Neither health plans nor provider groups should use financial incentives that encourage physicians or other providers to either overtreat patients or limit medically necessary care.

17. Quality Assurance. All health plans should implement comparable quality assurance programs consistent with nationally recognized standards and provide for external review of the quality of care conducted by qualified health professionals who are independent of the plan and accountable to the appropriate regulatory agency.

18. Utilization Management. Health plans which manage utilization of services should ensure that their utilization management activities are administered by qualified health care professionals and the appropriately licensed providers evaluate the clinical appropriateness of adverse decisions. ❖

"Say Ah," by Evany Zirul, DO, MFA; PMGofMA.
Another piece of her work can be seen on page 40.

Prayer

By Philip G. Danufsky, MD

I saw her only once, and long ago.
Strange that I see her still,
Lying on the white sheet, wide-eyed.
She does not shift her head when I come in.
She seems so old, beyond her seven years,
The body wasted, cheeks sunken,
Thin skin tented, shining over bone.
Only the belly is swollen.

I write the proper forms in futile detail,
Recording ruthless progression of symptoms, of signs;
Imposing irrevocable sentences on frail,
Defenseless paper, in black, indelible lines.

Our Lord, our Father, You Who fashioned light
To teach Your children how to see,
And, to bind us each to each, created night,
Why is this lost child given me?

A Father's Ritual

By Edmund Shaheen, MD

standing on tip toes
my chin rests on the anvil shoulders
of my teenage son

this son who once straddled *my* shoulders asks
"Now what, Dad?"

we review again
the lesson on
tying the necktie

I watch
our reflection
as the sacred rite unfolds

like the cascading mirrors
of the barber shop
before and behind

I see my father's fathers
and my son's sons
looping the colored cloth

tying the yolk

as he gets ready for work

PHILIP G. DANUFSKY, MD, joined The Permanente Medical Group as a Pediatric Endocrinologist for the Orange County area 25 years ago.

EDMUND SHAHEEN, MD, has been a Permanente physician since joining the Woodland Hills, California staff in 1976. His hobbies include foreign languages, anthropology, and the blues harmonica.

Epic Encounter

By M. Tepper Cohen, MD

i TRIED to let them
reprogram my brain;

sit quietly,
click appropriately,
enter data only
when prompted.

But my body,
my body kept
jumping out of the chair,
pacing,
stretching,
distracting,
intervening.

At first I blamed the caffeine,
poor sleep, bad posture, or karma.

But soon I was aware there
is this struggle—
so I used the pen;
at least I can
fight a small battle
on familiar turf
and win;

Before the defensive positions
of my cyberspace
(never knew I had one)
are completely overrun.

Managing Chaos

By J Trig Brown, MD, MPH

Always ask, "what else?"
pan for hidden gold.
Expect the worst,
listen to that inner voice
where Nature hides her doom.
When things are good,
never brag
lest wanting blame for bad.
When behind, slow down,
dot that i, recheck that lab.
When angry, smile.
Ruffled, sit.
Hurried, pause.
Give ten when asked for one.
Listen.
Smile.
Shake that hand.
Touch.
Touch.
Touch again.
And foremost, do no harm.
What else?

M. TEPPER COHEN, MD, has been practicing primary care medicine for 23 years. He is presently working in the minor injury clinic for Northwest Permanente.

J TRIG BROWN, MD, MPH, a general internist with The Carolina Permanente Medical Group, PA, is Chief of Internal Medicine for Durham and Chapel Hill.

Whatever Happened to Whistling?

By Gary D. Friedman, MD

When I was young, say, in the 1940s and 1950s, whistling was common. On the street, in school hallways and locker rooms and in the stores and workplaces one would frequently hear people whistling songs and other melodies. There was a mystery radio program called "The Whistler" in which whistling was the hero's trademark. Virtuosic whistlers sometimes appeared on variety shows. With a fair amount of effort, I learned to whistle as a child because I wanted to be able to do what so many others were doing. I then used to whistle a lot when a tune or theme was on my mind.

Now, wherever I go, I rarely hear whistling. To make sure that my poor high-frequency hearing is not deceiving me, I have asked a few others about this and they confirm that there is a lot less whistling now than there used to be. My wife reminded me that whistling was almost universally a male activity; one rarely heard women whistling.

Has whistling nearly disappeared, and if so, why? Are people now more inhibited?—less happy? Is whistling less socially acceptable now? Has whistling merely gone out of style? Is whistling primarily an activity of youth, with whom I now have less contact? (I doubt it because I never heard my kids or their friends whistling.) Is whistling more common east of California, the state where I have lived for the past 31 years? (I spent my youth in Cleveland and Chicago; the last person I heard whistling grew up in upstate New York.)

What do you think?

GARY D. FRIEDMAN, MD, an amateur musician, plays the oboe and English horn in two orchestras, a band, and chamber groups. Initially trained and board-certified as an internist, he changed his career focus to epidemiology and now serves as Director of the Division of Research in Kaiser Permanente's Northern California Region, where he has worked for 29 years.

Abstracts

These are abstracts of recent clinical articles authored or co-authored by Kaiser Permanente clinicians. All abstracts are reprinted with permission from the publisher.

Can Hematuria Be A Predictor As Well As A Symptom Or Sign of Bladder Cancer?

Gary D. Friedman; Peter R. Carroll; Eugene V. Cattolica; Robert A. Hiatt. Cancer Epidemiology, Biomarkers & Prevention 1996;5:993-996.

In a case-control study of urinalysis screening in the prevention of death from bladder cancer, hematuria was present in a higher proportion of cases than controls as long as five or six years before the diagnostic evaluation that led to the diagnosis of bladder cancer. In a separate cohort study data base that permitted the follow-up of 1046 persons with a physician's diagnosis of hematuria, 11 cases of bladder cancer were diagnosed more than two (mean 7.4) years after the hematuria diagnosis (4.3 cases expected; age-sex standardized morbidity ratio, 2.5; 95% confidence interval, 1.3-4.5). Bladder cancer was ruled out initially by cystoscopy in 8 of the 11 cases. Although we cannot be certain that preexisting bladder cancer or bladder cancer risk factors did not cause the bleeding, we hypothesize that hematuria can be a predictor as well as a manifestation of bladder cancer, based on a tendency for bladder mucosa with premalignant changes to bleed. The implications for screening and clinical practice remain to be determined.

Risk Factors For Hip Fracture In Men. Hip Fracture Study Group

Grisso JA; Kelsey JL; O'Brien LA; Miles CG; Sidney S; Maislin G; LaPann K; Moritz D; Peters B. American Journal of Epidemiol 1997;145:786-93

To identify risk factors for hip fracture in men, the authors conducted a case-control study involving 20 hospitals in Philadelphia, Pennsylvania, and 14 hospitals in Kaiser Permanente Medical Care Program of Northern California. The 356 enrolled men had been admitted with a radiologically confirmed first hip fracture. The 402 control men either were from the Philadelphia area or were members of Kaiser Permanente and were frequency matched to the cases by age and ZIP code or telephone exchange. Information on potential risk factors was obtained through personal interviews. Men in the lowest quintile of body mass had a greatly increased risk of hip fracture compared with men in the heaviest quintile (odds ratio (OR) 3.8, 95% confidence interval (CI) 2.3-6.4). Premorbid lower limb dysfunction was associated with increased risks for hip fracture (OR 3.4, 95% CI 2.1-5.4). Increased risks were also observed with the use of cimetidine (OR 2.5, 95% CI 1.4-4.6) and psychotropic drugs (OR 2.2, 95% CI 1.4-3.3). Smoking cigarettes or a pipe increased the risk of hip fracture, and this association was independent of body mass. Finally, previous physical activity was markedly protective. Factors thought to affect bone density as well as factors identified as risk factors for falls appear to be important determinants of the risks of hip fracture in men. Physical activity may be a particularly promising preventive measure for men. Additional studies of the use of cimetidine on osteoporosis and osteoporotic fractures are indicated.

A Clinical Trial of the Effects of Dietary Patterns On Blood Pressure

Lawrence J. Appel, MD, MPH; Thomas J. Moore, MD; Eva Obarzanek, PhD; William M. Vollmer, PhD; Laura P. Svetkey, MD, MHS; Frank M. Sacks, MD; George A. Bray, MD; Thomas M. Vogt, MD, MPH; Jeffrey A. Cutler, MD; Marlene M. Windhauser, PhD, RD; Pao-Hwa Lin, PhD; and Njeri Karanja, PhD; for the DASH Collaborative Research Group. New England Journal of Medicine 1997;336:1117-24.

Background

It is known that obesity, sodium intake, and alcohol consumption influence blood pressure. In this clinical trial, Dietary Approaches to Stop Hypertension, we assessed the effects of dietary patterns on blood pressure.

Methods

We enrolled 459 adults with systolic blood pressures of less than 160 mm Hg and diastolic blood pressures of 80 to 95 mm Hg. For three weeks, the subjects were fed a control diet that was low in fruits, vegetables, and diary products, with a fat content typical of the average diet in the United States. They were then randomly assigned to receive for eight weeks the control diet, a diet rich in fruits and vegetables, or a "combination" diet rich in fruits, vegetables, and low-fat diary products and with reduced saturated and total fat. Sodium intake and body weight were maintained at constant levels.

Results

At base line, the mean (±SD) systolic and diastolic blood pressures were 131.3±10.8 mm Hg and 84.7±4.7 mm Hg, respectively. The combination diet reduced systolic and diastolic blood pressure by 5.5 and 3.0 mm Hg more, respectively, than the control diet (P<0.001 for each); the fruits-and-vegetables diet reduced systolic blood pressure by 2.8 mm Hg more (P<0.001) and diastolic blood pressure by 1.1 mm Hg more (P=0.07) than the control diet. Among the 133 subjects with hypertension (systolic pressure, >140 mmHg; diastolic pressure, >90 mmHg; or both), the combination diet reduced systolic and diastolic blood pressure by 11.4 and 5.5 mm Hg more, respectively, than the control diet (P<0.001 for each); among the 326 subjects without hypertension, the corresponding reductions were 3.5 mm Hg (P<0.001) and 2.1 mm Hg (P=0.003).

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"A diet rich in fruits, vegetables, and low-fat dairy foods and with reduced saturated and total fat can substantially lower blood pressure. This diet offers an additional nutritional approach to preventing and treating hypertension."

Conclusions

A diet rich in fruits, vegetables, and low-fat dairy foods and with reduced saturated and total fat can substantially lower blood pressure. This diet offers an additional nutritional approach to preventing and treating hypertension.

Calcium Intake and Fracture Risk: Results from the Study of Osteoporotic Fractures

Cummings RG; Cummings SR; Nevitt MC; Scott J; Ensrud KE; Vogt TM; Fox K. American Journal of Epidemiol 1997;145(10):926-34.

"Compared with claims primary care physicians, no-claims primary care physicians used more statements of orientation (educating patients about what to expect and the flow of a visit), laughed and used humor more, and tended to use more facilitation (soliciting patients' opinions, checking understanding, and encouraging patients to talk)."

The relation between dietary calcium, calcium, and vitamin D supplements and the risk of fractures of the hip (n=332), ankle (n=210), proximal humerus (n=241), wrist (n=467), and vertebrae (n=389) was investigated in a cohort study involving 9,704 US white women aged 65 years or older. Baseline assessments took place in 1986-1988 in four US metropolitan areas. Dietary calcium intake was assessed at baseline with a validated food frequency questionnaire. Data on new nonvertebral fractures were collected every 4 months during a mean of 6.6 years of follow-up: identification of new vertebral fractures was based on comparison of baseline and follow-up radiographs of the spine done a mean of 3.7 years apart. Results were adjusted for numerous potential confounders, including weight, physical activity, estrogen use, protein intake, and history of falls, osteoporosis, and fractures. There were no important associations between dietary calcium intake and the risk of any of the fractures studied. Current use of calcium supplements was associated with increased risk of hip (relative risk - 1.5, 95% confidence interval 1.1-2.0) and vertebral (relative risk=1.4, 95% confidence interval 1.1-1.9) fractures: concurrent use of Tums antacid tablets was associated with increased risk of fractures of the proximal humerus (relative risk-1.7, 95% confidence interval 1.3-2.4). There was no evidence of a protective effect of vitamin D supplements. Although a true adverse effect of calcium supplements on fracture risk cannot be ruled out, it is more likely that our findings are due to inadequately controlled confounding by indications for use of supplements. In conclusion, this study did not find a substantial beneficial effect of calcium on fracture risk.

Physician-Patient Communication: The Relationship with Malpractice Claims Among Primary Care Physicians and Surgeons

Wendy Levinson, MD; Debra L. Roter, DrPH; John P. Mullooly, PhD; Valeria T. Dull, PhD; Richard M. Frankel, PhD. JAMA 1997;277:553-559.

Objective

To identify specific communication behaviors associated with malpractice history in primary care physicians and surgeons.

Design

Comparison of communication behaviors of "claims" vs. "no-claims" physicians using audiotapes of 10 routine office visits per physician.

Settings

One hundred twenty-four physician offices in Oregon and Colorado.

Participants

Fifty-nine primary care physicians (general internists and family practitioners) and 65 general and orthopedic surgeons and their patients. Physicians were classified into no-claims or claims (≥ 2 lifetime claims) groups based on insurance company records and were stratified by years in practice and specialty.

Main Outcome Measures

Audiotape analysis using the Roter Interaction Analysis System.

Results

Significant differences in communication behaviors of no-claims and claims physicians were identified in primary care physicians but not in surgeons. Compared with claims primary care physicians, no-claims primary care physicians used more statements of orientation (educating patients about what to expect and the flow of a visit), laughed and used humor more, and tended to use more facilitation (soliciting patients' opinions, checking understanding, and encouraging patients to talk). No-claims primary care physicians spent longer in routine visits than claims primary care physicians (mean, 18.3 vs. 15.0 minutes), and the length of the visit has an independent effect in predicting claims status. The multivariable model for primary care improved the prediction of claims status by 57% above chance (90% confidence interval, 33%-73%). Multivariable models did not significantly improve prediction of claims status for surgeons.

Conclusions

Routine physician-patient communication differs in primary care physicians with vs. without prior malpractice claims. In contrast, the study did not find communication behaviors to distinguish between claims vs. no-claims surgeons. The study identifies specific and teachable communication behaviors associated with fewer malpractice claims for primary care physicians. Physicians can use these findings as they seek to improve communication and decrease

malpractice risk. Malpractice insurers can use this information to guide malpractice risk prevention and education for primary care physicians but should not assume that it is appropriate to teach similar behaviors to other specialty groups.

Randomized Controlled Trial of a Low Animal Protein, High Fiber Diet in the Prevention of Recurrent Calcium Oxalate Kidney Stones

Robert A. Hiatt; Bruce Ettinger; Bette Caan; Charles P. Quesenberry, Jr.; Debra Duncan; John T. Citron. American Journal of Epidemiology 1996;144:25-33.

Low protein diets are commonly prescribed for patients with idiopathic calcium nephrolithiasis, who account for >80% of new diagnoses of kidney stones. This dietary advice is supported by metabolic studies and epidemiologic observational studies but has not been evaluated in a controlled trial. Using 1983-1985 data from three Northern California Kaiser Permanente Medical Centers, the authors randomly assigned 99 persons who had calcium oxalate stones for the first time to a low animal protein, high fiber diet that contained approximately 56-64 g daily of protein, 75 mg daily of purine (primarily from animal protein and legumes), one-fourth cup of wheat bran supplement, and fruits and vegetables. Intervention subjects were also instructed to drink six to eight glasses of liquid daily and to maintain adequate calcium intake from dairy products or calcium supplements. Control subjects were instructed only on fluid intake and adequate calcium intake. Both groups were followed regularly for up to 4.5 years with food frequency questionnaires, serum and urine chemistry analysis, and abdominal radiography; and they were urged to comply with dietary instructions. In the intervention group of 50 subjects, stones recurred in 12 (7.1 per 100 person-years) compared with 2 (1.2 per 100 person-years) in the control group; both groups received a mean of 3.4 person-years of follow-up (p=0.006). After adjustment for possible confounding effects of age, sex, education, and baseline protein and fluid intake, the relative risk of a recurrent stone in the intervention group was 5.6 (95% confidence interval 1.2-26.1) compared with the control group. The authors conclude that advice to follow a low animal protein, high fiber, high fluid diet has no advantage over advice to increase fluid intake alone.

Continuation of Postmenopausal Hormone Replacement Therapy: Comparison of Cyclic Versus Continuous Combined Schedules

Bruce Ettinger; De-Kum Li; Raymond Klein. Menopause 1996;3(4):185-9.

Discontinuation of hormone replacement therapy (HRT) is much more common than what is reported in randomized, double-blind clinical trials. Our purpose in this retrospective study, using a prescription database, was to compare the continuation rate among women who took cyclic combination therapy adding progesterone to estrogen (CYC-PERT) or continuous combined estrogen progestin therapy (CC-PERT). The study subjects were 1,532 women, ≥45 years old, who initially filled index prescriptions for 0.625 mg conjugated estrogens. They were divided into two groups (CYC-PERT = 644, CC-PERT = 888) on the basis of coprescribed medroxyprogesterone. We found that for all women initiating therapy, 35-40% did not return for a refill and 76-81% stopped therapy within 3 years. Those prescribed CC-PERT initially were more likely to stop than those prescribed CYC-PERT (rate ration [RR] = 1.20; 95% confidence interval [CI] = 1.06-1.35). Adjustments for age, year of starting medication, cost of medication, and prescriber specialty did not affect the difference in discontinuation between the two regimes (RR = 1.18, 95% CI = 1.04-1.34). We conclude that the likelihood of women continuing HRT beyond 3 years of initiation is low. Furthermore, compared with CYC-PERT users, those receiving CC-PERT have a slightly higher probability of discontinuation. Efforts should be made to understand why three quarters of women beginning HRT will stop it long before it can provide major long-term benefit.

"We found that for all women initiating therapy, 35-40% did not return for a refill and 76-81% stopped therapy within 3 years."

Identification of Children At Risk for Lead Poisoning: An Evaluation of Routine Pediatric Blood Lead Screening in an HMO-Insured Population

Mary N. Haan; MPH, DrPH; Marianne Gerson, MD, MPH; B. Anne Zishka, BA, MSW. Pediatrics 1996;97:79-83.

Objectives

To estimate the prevalence of elevated blood lead levels in children receiving well-care checkups; and to evaluate the effectiveness of certain key risk factors in detecting children at higher risk for elevated blood lead levels.

Design

Cross-sectional study.

Setting

Two facilities of the Kaiser Permanente Medical Care Program (KPMCP) health maintenance organization (HMO), Northern California region.

Patients

Six hundred thirty-six children, aged 12 to 60 months, who were seen at four KPMCP facilities in two subregions for a well-care checkup from September 1991 through August 1992.

Interventions

Blood samples were collected from each child and analyzed for lead content. Participating parents completed a questionnaire that included questions recommended by the Centers for Disease Control and Prevention (CDC) about the child's and the parent's lead exposure via home, workplace, and hobbies.

Results

Ninety-six percent of the children had blood lead levels under 10 mg/dL. Blood lead levels declined with increasing age and were higher for black children compared with whites. Age of residential housing, mother's education, and residence in an old house with peeling paint had low sensitivity and positive predictive value for identifying children with blood lead levels over 10 mg/dL.

Conclusion

Universal routine screening for elevated blood lead levels in children in an employed, HMO-insured population is not warranted on grounds of prevalence. Responses to CDC questions do not effectively identify high-risk children in this population.

"Overnight hospitalization after transurethral prostatectomy is an appropriate, safe and cost-effective pathway of patient care that is readily applicable to any urology practice."

The Safety of Overnight Hospitalization for Transurethral Prostatectomy: A Prospective Study of 200 Patients

Roderic J. Cherrie; Roberta A. Young and Eugene V. Cattolica. Journal of Urology 1997;157:531-533.

Purpose

Our goal was to determine the appropriateness, safety and cost-effectiveness of catheter removal and hospital discharge 1 day after transurethral prostatectomy.

Materials and Methods

A prospective study of 200 patients who underwent transurethral prostatectomy during a 23-month period was done. On the morning of postoperative day 1 catheters were removed from 156 patients (78%) who had normal vital signs, adequate urine output, absence of clots and acceptable character of the catheter effluent.

"The findings included a forty-five percent decrease in sick care office visits, a fifty-five percent decrease in acute care visits, and a sixty-seven percent decrease in the number of hospitalizations after the allergy evaluation."

Results

Among the 156 patients whose catheters were removed 4 of 5 went home on postoperative day 1. Two of these patients were rehospitalized within 30 days, as were 2 others whose catheters were removed later. Overall length of patient stay was 1.6 days.

Conclusions

Overnight hospitalization after transurethral prostatectomy is an appropriate, safe and cost-effective pathway of patient care that is readily applicable to any urology practice.

Cost Effectiveness of an Allergy Consultation in the Management of Asthma

Westley CR; Spiecher B; Starr L; Simons P; Sanders B; Marsh W; Comer C; Harvey R. Allergy Asthma Proc, 1997 Jan-Feb;18(1):15-8

In a large Denver HMO, a retrospective study of asthma management was reviewed. Seventy moderate to severe asthmatic patients' charts were reviewed through April 1994. All patients admitted to the study had to be followed for at least 1 year by a primary care physician before the allergy evaluation (AE) and for at least one year of follow-up (F/U) after the AE. All patients had at least two acute care (ER) visits and/or one hospitalization before the AE. All primary care, AE, and F/U were done by staff physicians in the Kaiser Permanente system. The findings included 1) Forty-five percent decrease (308 to 169) in the number of sick care office visits (P=0.0001); 2) fifty-five percent decrease (266 to 118) in acute care visits (P= 0.0001); 3) sixty-seven percent decrease (34 to 11) in the number of hospitalizations after the AE (P=0.001); 4) average hospital days before AE were four days and after AE, 2.5 days; 5) estimated cost saving of $145,500, or $2,100 per patient.

Identification of Neonatal Deaths in a Large Managed Care Organization

Escobar GJ; Gardner MN; Chellino M; Fireman B; Verdi J; Yanover M. Paediatr Perinat Epidemiol 1997 Jan;11(1):93-104

The neonatal (< 28 days) mortality rate (NMR) is one of the most commonly employed maternal and child health epidemiological measures. It is also being employed in quality measures ("report cards") used to assess the performance of health care organizations. The objectives were to (1) develop methods for the rapid quantification of the neonatal mortality rate in a multi-hospital system, the Kaiser Permanente Medical Care Program's Northern California Region (KPMCP NCR), (2) develop methods for generating facility-specific rates and case lists, and (3) ascertain the capture rates of the information sources available to us. Potential neonatal deaths were identified in the KPMCP NCR for the 1990 and 1991 calendar years from 3 sources: (1) clerical searches of local facility records, (2) electronic searches of the KPMCP NCR hospitalization database, and (3) linking KPMCP electronic birth records to death certificate tapes. The medical records of all infants identified through these methods were reviewed. The neonatal mortality rate was calculated in three ways: (1) including all livebirths, (2) excluding births weighing < 500 g, and (3) adjusting for prematurity by increasing the follow-up period in preterm babies (these babies were included as

neonatal deaths if they died up to 40 weeks corrected age + 27.9 days). A total of 352 records out of 64 469 birth records in the KPMCP NCR were reviewed. If one includes babies < 500 g, the neonatal mortality rate was 3.72/1000 livebirths; if these babies are excluded, the rate was 3.05/1000. Adjusting for prematurity increased these rates to 3.91/1000 and 3.24/1000, respectively. Accurate quantification of the neonatal mortality rate in a multi-hospital system requires the use of multiple information sources. Use of a single source can lead to varying rates of over- or under-estimation. It is possible to employ our methodology for both research and operational purposes.

"The ultimate measure of a man is not where he stands in moments of comfort and convenience, but where he stands at times of challenge and controversy."

Dr. Martin Luther King, Jr.

By Roger Miyaji, JD

Managed Care Risk Management

Introduction

"Risk Management" describes the business function of identifying and minimizing potential financial losses by purchasing insurance, negotiating contracts, eliminating risks, or reducing damages. All businesses analyze their services or products to determine the main sources (actual and potential) of financial loss, and risk management programs are then developed to address areas of greatest financial exposure. Within health care businesses, risk management programs also improve the quality of care and services while preventing financial losses. Depending on how one views the Kaiser Permanente (KP) Medical Care Program, the greatest financial exposure can result from either 1) potential punitive damages for denial of benefits or 2) professional and general liability claims against physicians or allied health professionals.

Historically, most KP programs have concentrated on professional and general liability claims, but new "managed care" claims have begun to blur the distinction between denial of benefits and professional liability. Managed care claims tend to allege that needed service was denied and that this denial violated the member's health plan agreement and breached community standards of care.

This article explains "managed care liability" and presents some basic components of a risk management program for this liability.

What is Managed Care Liability?

Lawsuits brought by patients against managed care entities fall into two categories: 1) challenges to quality of care or claims of provider malpractice, and 2) assertions that medical treatment was improperly denied. KP has a long history of defending the first type of claim through its Risk Management or Medical Legal departments and defending the second type of claim through its Contract Administration department. Recently, however, these two types of claims have been combined into the same lawsuit, thereby enabling the plaintiff to "dehumanize" the error and thus inflame the sentiments of the jury so that it "sends a message" that such care or treatment will not be tolerated in future cases. If the jurisdiction allows punitive damages, plaintiffs tend to seek these; if punitive damages are not allowed or are severely restricted, plaintiffs tend to use the same argument to increase the amount of the award.

Plaintiff attorneys are increasingly combining regular medical malpractice claims with one or more of the following "managed care" issues:

- negligent selection or supervision of providers
- inconsistent denial of experimental or investigational services (In a 1993 California case the jury awarded $89 million to the plaintiff, a breast cancer patient, after her managed care provider denied payment for bone marrow transplantation. Although the provider based its defense on the plaintiff's contract, which did not cover experimental or investigational procedures, the plaintiff presented evidence that the provider had paid for bone marrow transplantation for another breast cancer patient[1])
- inappropriate delegation to nonphysicians
- nonphysician control of approving emergency services
- misrepresentation/false advertising
- financial incentives which discourage needed services[2]

How to Minimize Managed Care Liability*

The following steps will assist greatly in minimizing managed care liability:

1. Select providers carefully.
2. Provide and document ongoing supervision and evaluation of providers.
3. Establish written criteria for approving or denying experimental or investigational services, and document (with full explanation) any exceptions made.
4. Understanding that supervision by physicians is not an adequate substitute for required licensure, ensure that all nonphysicians are both properly trained and have any applicable licensure. (Some public education about the roles of allied health providers may also be helpful if the providers are relatively new to the locale.)
5. Develop guidelines for advice nurses to use when dealing with potential emergencies, and periodically monitor their telephone conversations with patients (giving all appropriate indications of monitoring or taping required by state law).
6. Legal counsel or legally trained assistants should review all advertising and marketing materials (which should avoid generally subjective qualitative terms such as "best care" or "highest quality").

What Individual Physicians or Allied Health Providers Can Do*

1. Review prior care. Because managed care organizations are large and complex, continuity of care can become a problem. At every patient visit, there-

ROGER MIYAJI, JD, was formerly Counsel and Director of Medical Legal for the Northwest Division. He has developed risk management data systems for the Northwest Division and the Hawaii Region.

fore, review the care given by previous providers (for example, try to review the last three or four notes) to prevent errors caused by inadequate continuity of care. Write an accurate, objective description for the provider who next sees the patient.

2. Offer or recommend preventive care. Recommend appropriate preventive care (e.g., mammography, Pap smears, chest x-ray film, sigmoidoscopy, immunizations, cholesterol screening) based on the patient's risk factors, especially where these are included in marketing materials. Document your recommendations. The duty to offer treatment is as important as the treatment itself.

3. Make extra effort in urgent situations. Always assess the urgency of your requests for diagnostic studies, referrals, or consultations, and never allow scheduling delays to cause excessive risk to the patient. Be sure to document your extra efforts. Avoid the "I just work here" attitude!

4. Provide adequate supervision. Do not allow nonphysicians to practice beyond the scope of their licensure and competence. Similarly, do not allow medical or surgical residents to practice beyond their current level of training and competence.

5. Recommend needed care without regard to coverage. Do not allow specific health plan coverage limitations to prevent giving a patient appropriate recommendations for medical care, and always document such recommendations. Remember: your duty as a physician or allied health provider is to recommend—not to approve—treatment.

6. Communicate fully, with thorough documentation.
   - Provide adequate and accurate information to utilization management (or other persons who approve coverage) to support appropriate decisions.
   - Consider the risk of decisions which deny care to the patient, and objectively explain the reasoning to the patient. Be sure to document this reasoning.
   - When talking to patients or documenting in the records, do not accuse the health plan of denying proper medical care or for offering only a limited choice of referral providers; you may be unaware of other viable options, and the patient may not have exhausted appeals rights.

7. Understand the proper use of telephone advice and follow-up.
   - Because adequate assessment over the phone is often impossible, telephone advice should aim not to restrict care but instead to direct patients to appropriate sources of treatment.
   - When the appropriate medical advice is that no medical appointment or visit to the emergency department is needed, be sure to document both the caller's response (in quotes) and the advice given. Advice to stay home or to call back if the condition worsens should be based on written protocol, and documentation should refer to this protocol.
   - If you either agree to call the patient back or indicate that someone else will call back, ensure that the return call was made and is documented.

8. Use caution when providing informal employee consultations. Employees are health plan members; accordingly, when employees ask for informal medical advice, insist that they schedule an appointment or obtain urgent care. Document employee requests for informal medical advice in the medical records or use forms as specified in your local or divisional policies and procedures.

9. Keep patient/attorney letters within their proper scope. When writing letters to a patient or the patient's attorney, restrict your comments to objective information from the medical records or your own medical observations; do not try to explain health plan coverage unless you have first obtained legal review or assistance from the appropriate health plan representative.

Responding to Patients' Demands for Specialty Referrals*

Most specialty referrals or diagnostic studies are arranged using preapproved protocols or guidelines. The following suggestions can be helpful in addressing what you perceive to be an unreasonable demand. If your area or division has no protocols or guidelines pertaining to this situation, contact the appropriate people about developing such protocols or guidelines.

What To Do

- Take the demand seriously; do not simply dismiss it as foolish. Assure the patient that you understand the reason for his or her concern.
- Explain that the specialist (or radiologist or laboratory) expects certain things to be done before a referral is made or a request for diagnostic studies granted. Never say, "The health plan expects ... "
- Explain your plan by telling the patient, "This is what we need to do before any referral/request is made"; or "If we have not accomplished [goal] by [target date], then I will make the referral (or grant the request)."
- Document your promise. The patient will remember exactly what you said.

What Not To Do

- Never tell patients that the referral or test they have requested is too expensive or that "If I refer every patient who wants to see a specialist, the health system will go broke."
- Never dismiss patients' requests by saying, "I will be the judge of what you need."
- Never say, "Don't worry about it now—if you really need a referral/test, we'll do it another time." This shows a lack of concern.
- Never accuse the patient of being a hypochondriac.
- Never disparage or otherwise attack the patient's lawyer who suggested that the patient seek referral to a specialist. You may explain that tests or referrals are covered only if done for medical reasons and not if done solely for purposes of litigation.

The "Golden Rules"

Although liability and litigation has changed over the years, some things remain the same. It is still as true now as it was 10 years ago that avoiding lawsuits can be as simple or as complex as doing the following:

1. treating your patients as you would wish to be treated if you were the patient;
2. carefully providing documentation that is
   - objective
   - comprehensive
   - legible
   - nothing you would be ashamed of if the written record is enlarged photographically for scrutiny by a jury;
3. Refraining from blaming someone else (especially the health plan) for the patient's condition or outcome.

Clinicians who take these approaches can simultaneously improve quality of service and care given to our members and prevent the financial losses which can result from liability claims. ❖

**Materials adapted from presentation by Dan Tennenhouse, MD, JD, Consultant, Medical Legal Department, Kaiser Permanente, California Division, 1996.*

References
1. Fox v. Health Net, Civ. No. 21962, Riverside County Super. Ct., Cal., Dec. 28, 1993.
2. Gross v. Prudential Health Care Plan, No. CJ-9474267 (Okla. Cty. Ct. Oct. 1, 1996), a trial court decision reported in the "Health Law Digest, 1997, v. 25, n. 1, p. 54 under Managed Care.

"Everyone spoke of information overload, but what there was in fact was a non-information overload."
Richard Saul Wurman, What-If, Could-Be, Philadelphia, 1976.

Announcements

Quality and Learning Conference

The Quality and Learning Conference will be held November 13-15, at the Sheraton Harbor Island Hotel in San Diego. The proceedings on the 13th will be optional minicourses, special interest groups, and an opening reception.

If you have any questions regarding the conference, contact Hannah King at (510) 271-6609.

CDC Video Conference: Hepatitis C

The Centers for Disease Control and Prevention and the Hepatitis Foundation International are cosponsoring a national video conference on Saturday, November 22, 1997 through the Public Health Training Network.

This 2-1/2 hour conference will accommodate East and West Coast time differences with two live, interactive sessions, the first at 8:30 am EST, and the second at 9:00 am PST. Attendees will be charged a nominal fee for registration and reference materials.

For information about a site in your area call the Hepatitis Foundation International at 1-800-891-0707. To register call Faxx Back at 888-CDC-FAXX and request document #130010.

Attention Deficit Symposium Planned for Hawaii

A symposium on the evaluation and management of attention deficit hyperactivity disorder (ADHD) is planned for next February on the Big Island of Hawaii. Sponsored by the ADHD Best Practices Committee, the week-long event is open to Kaiser Permanente pediatricians, psychologists, RNs and RNNPs.

The symposium, titled, "ADHD: Integrated care in Changing Times" is set for February 14-20, 1998 at the Mauna Kea resort. For more information, contact Harvey Kayman, MD at (510) 795-3169.

8th Interregional Conference on Primary Care, Occupational Health, and Musculoskeletal Medicine

Conference will be held April 4-11, 1998, at the Aston Wailea Conference Hotel in Wailea, Maui, Hawaii. For information or a brochure contact Ferdy Massimino, MD at (510) 987-4856, or via e-mail at ferdy.massimino@ncal.kaiperm.org.

KP Clinical Practice Exchange

http://www.kpexchange.org

KP Clinical Practice Exchange is a secure Internet-based environment for health care professional access to clinical resources, communications, and information within Kaiser Permanente. Search for the latest findings from colleagues, discuss research efforts and share common interests, locate colleagues around the corner or across the state, and contribute to the diversity and value of the Exchange with your documents.

Contact Rachelle.Mirkin@kp.org for further information.

Send Us Your Announcements

The Permanente Journal is interested in your announcements. Topics may include upcoming multidivisional or Programwide meetings, conferences, or other events of interest to Permanente physicians. These events typically should be sponsored by the Permanente Medical Groups or Kaiser Permanente.

The **Journal** is also interested in publishing details of new services available to PMG physicians in more than one Medical Group (a new Web Page for Permanente pediatricians, for example) and major achievements by Permanente physicians or Permanente Medical Groups. These may include national awards, major grants, leadership appointments, NCQA accreditation, and other significant accomplishments.

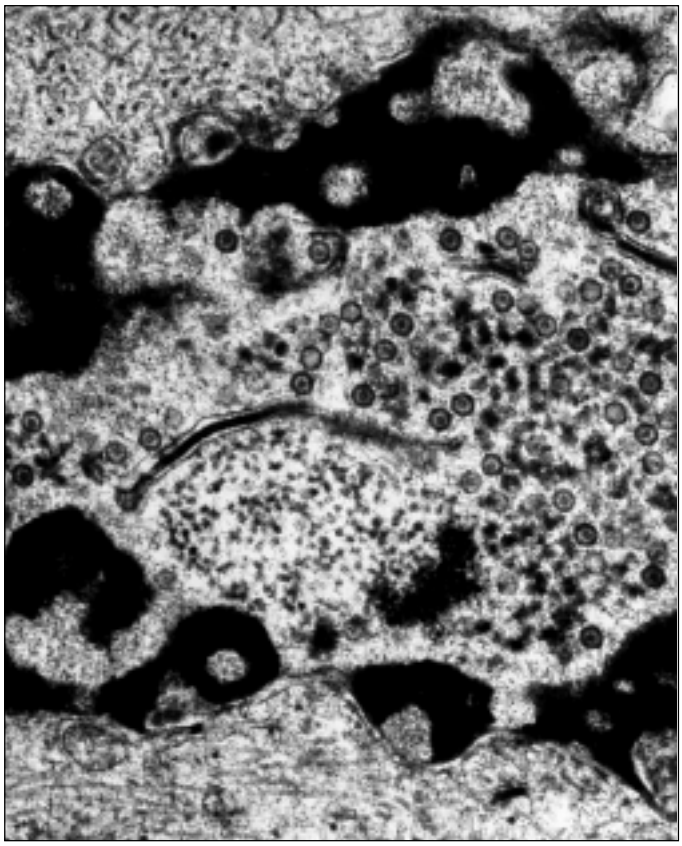
Deadline for inclusion of your announcements in our third issue, which will be published February 1, 1998, is December 15, 1997. Items should be short and include a phone number for the key contact. The staff of **The Permanente Journal** reserves the right to determine which announcements will be published.

Send your announcements to Merry Parker, Managing Editor, 500 NE Multnomah St, Ste 100, Portland, OR 97232.

Help Us Publicize Your Research

Are you a physician about to publish a research article, present a major paper, obtain a large research grant, or author a book? If so, the communications professionals of Kaiser Permanente want to hear from you! By telling us about your work **before** it reaches the public domain, we can help you develop a communications strategy to seek media coverage and gain recognition for your efforts.

Simply call the KP Research Hotline at 1(800) 524-7702. Available 24 hours a day, the Hotline is supported by the Permanente Medical Groups and Kaiser Permanente communications staff Programwide. Sharing our organization's research more widely will support Kaiser Permanente's position as a leader in clinical innovation, promote our commitment to continuous quality improvement, and help improve the health of the communities we serve.



Electron micrograph of endothelial cell with intranuclear cytomegalovirus inclusion. Viral particles are clearly seen. Original magnification X 73,000. Submitted by Gloria S. M. Yu, MD, Chief, Pathology Department, The Permanente Medical Group/ Fremont.

Letters to the Editor

To the Editor.–Hi everyone! I am looking (with a smile on my face) at the new *Permanente Journal.* It looks great! I am very excited to be in a group with its own journal. Please keep up the good work.

Ann Beach, MD
Associate Medical Director for Clinical Affairs
Southeast Permanente Medical Group

To the Editor.–I have just reviewed *The Permanente Journal,* and I want to tell you all how proud I am to be associated with the people and organization that produces such a fine piece of work. It's terrific! I know it will take its place in time as a nationally recognized journal of excellence.

You're the best!

Alide Chase
Director of Medical Operations
Kaiser Permanente, NW Division

To the Editor.–The first issue of *The Permanente Journal* is wonderful. It is getting rave reviews all over the Program. It is a credit to the image of our medical groups and has been sorely needed for some time. You are to be commended for the work and the dedication that you have put into making this a success.

Jay Crosson, MD
Executive Director
The Permanente Federation

To the Editor.–With respect to the story in "The Lighter Side of Medicine" about duck hunting, it would seem our Texas colleague did not present us with the tall yarn Texans are famous for, and the true unabridged tale follows:

Five medical colleagues, all in different specialties went duck hunting. For the sake of safety they agreed only one would shoot at a time from behind the blind and they also agreed on the order in which they would shoot. The first was the psychiatrist who stood to shoot, but when he did so, he said he wasn't sure the flock of birds flying overhead were legal game, because they were in disarray and required analysis. Before you know it, the birds were gone and he hadn't even gotten off one shot. The next to stand and shoot was the internist. However, he too was uncertain of the birds flying overhead and wanted to run some tests first before shooting any. Needless to say, he too did not get off even one shot. When the next flock flew overhead, the surgeon rose and blasted off so many shots he had to reload repeatedly and shot enough birds to make his limit and the limit of the internist and psychiatrist who hadn't shot any ducks. The sky was blackened with ducks falling from on high. The retrievers were busy and panting from running back and forth with the ducks. Each duck was examined by the surgeon, and occasionally he would toss one to the pathologist along with the inquiry, "Is this a legal duck?" The pathologist examined each duck thrown to him and determined that all were legal, except for one. The pathologist threw the illegal duck to the fifth colleague, the anesthesiologist, saying "Resuscitate this one."

Sylvain Fribourg, MD, FACOG
Obstetrics and Gynecology Department
Southern California Permanente Medical Group

To the Editor.–As a long-time Kaiser Permanente employee, I examined the first issue of *The Permanente Journal* with pride and interest. It is a wonderful balance between scholarly scientific articles and miscellaneous pieces of entertainment and information. In every respect — content, format, materials — it is a first-class production.

Sharon Gronningen, RN
Heart Failure Case Manager
California Division, Oakland

To the Editor.–Liked Vol 1, No 1 very much. A few suggestions, if you please:

1. The photos of authors are okay, but real journals don't use them.
2. The type is too small on the charts and tables, making them difficult to read.
3. Outside margins take away a lot of room for real information, like better charts, etc.
4. editorial capsules in margin don't add much.
5. In the photo department:
   a) photo of a mustache contributes nil to the discussion of mustache related allergies.
   b) ditto for the photo of a kid seated at a computer.

Looking forward to Vol 1, No 2.

John Kearney, MD
Department of Ophthalmology
The Permanente Medical Group, Hayward

In reply.–Thank you very much for writing us a note. We appreciate your taking the time and being candid, so that we can enhance *The Journal.* We will discuss your comments (which were representative of others) at the editorial team meeting.

As a note of explanation, we are trying to personalize this journal more than you would expect from a traditional medical journal. We want to feature the people

doing the work along with their work, since this is a journal of our medical group and one of our goals is to help people connect across the country. Photos of authors and bios add a great deal to reader interest and help us to get to know each other. In this way we are actively trying to be different than other journals.

The mustache and the boy photos you noted were placed in an attempt to add more visual content and an attempt at both humor and visual interest. We are closely monitoring the response we get to all items of *The Permanente Journal* and intend to improve it to please our readers.

The margin of space is also part of our design, and though it may waste space for other content we again are responding to our audience (this time the physician focus groups who told us they wanted something different than just pages of dense text). As a design feature, the addition of white space adds balance to the text and gives visual relief.

The comment you made about the small type/reduced readability of the tables is extremely important and we will address that specifically, as reduced clarity of information is not acceptable.

Thanks again, and please let us know about our next issue.

Tom Janisse, MD
Editor-In-Chief

To the Editor.–Congratulations on a beautiful inagural issue of *The Permanente Journal!*

Ronald R. Louie, MD
Pediatric Oncology/Hematology
GHC/Eastside Hospital

To the Editor.–Congratulations. I thought the premier issue turned out extremely well. The whole presentation was very professional and the general variety and scope of the articles and various pieces was good. Definitely a higher class publication than all the throwaways.

Barney Newman, MD
Associate Regional Medical Director
and TPJ Advisory Board Member
Northeast Permanente Medical Group

To the Editor.–It was my great pleasure to be told of *The Permanente Journal* and to read it online. I found it interesting, provocative, and filling a very long-felt need. As a retiree from the Southern California Group, I get enormous pleasure in reading this kind of very positive work from my erstwhile colleagues. Keep up the great work, and congratulations.

Sidney Reiff, MD
Retiree, Southern California Permanente
Medical Group

To the Editor.–So far it looks great!!

Bruce Sabin, MD
Director of Lipid Clinic
and TPJ Advisory Board Member
The Southeast Permanente Medical Group

To the Editor.–Congratulations! I have just received and read the first issue of *The Permanente Journal.* It is a smashing success. Only those who have been involved in similar projects may be able to appreciate the enormous amount of work, time and agony associated with giving birth to such a baby. I am sure that it will serve the function and clearly attain its goal in your command.

Henry R. Shinefield, MD
The Permanente Medical Group

To the Editor.–I just finished reading through (for the first time) the Summer 1997 issue Vol 1, No 1. I am completely impressed with your inaugural effort! I must commend all of you who put together such an impressive research journal that favorably represents the interesting and challenging work that is done at Kaiser Permanente. I look forward to further issues to enlighten and educate myself and my peers. Thank you very much.

Greg Starr, RN, OCN
HIV Case Manager
California Division, Oakland

To the Editor.–The Permanente Journal is superb! The format is very attractive and the contents are a perfect balance between the New England Journal and a throwaway! Congratulations. You should be feeling a warm glow of satisfaction at accomplishing this major work.

Mark Tochen, MD
Pediatrician
Northwest Permanente, PC

To the Editor.–Congratulations! The first issue of *TPJ* really surprised people! It exceeded my expectations also. The quality of each section was superb. I had pre-read some of the original clinical research contributions and knew it was going to be quality. You have done an outstanding job and it makes us in the Hawaii region very proud of the new journal!

Thanks for a wonderful start.

David Waters, MD
Opthamology, Member Board of Directors,
and TPJ Advisory Board Member
Hawaii Permanente Medical Group

Instructions for Authors

Send all manuscripts to:

Merry Parker, Managing Editor
The Permanente Journal
500 NE Multnomah St, Suite 100
Portland, Oregon 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, 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.)

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 of his/her contribution to the **Journal**.

Types of Papers

There is no length requirement, although concise, readable, and practical articles 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 725–5,000)
- 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 725–5,000)
- Health Systems Management
  Articles from a "systems" perspective, recognizing that medicine is practiced in the larger context of health care, involving 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 725–3,000)
- 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 725–3,000)
- 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 725–1,400)
- 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 725–2,200)
- 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 works 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.

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 one 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 (e.g. Mac), and the word processing software used (e.g. 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 Region 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.

The second page of a *clinical article* is to contain an abstract of 250 words or less with a conclusion. *Nonclinical articles* need only include a brief summary preceding the article. 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 new 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, to expand the value of the article. Tables and illustrations must be cited in order in the text using Arabic numerals. Submit one complete set in 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 patient's names, initials, and health record numbers. A patient must not be recognizable in photographs unless written consent of the subject has been obtained.

References

References must be numbered with Arabic numerals, and cited in the text in numerical order. The reference list at the end of the article must also be in numerical 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 four authors

1. Beutler E. The effect of methemoglobin formation on sickle cell disease. *J Clin Invest* 1961;40:1856-1858.
2. Karpatkin S, Smith K, Charmatz A. Heterogeneity of human platelets. III. Glycogen metabolism in platelets of different sizes. *Br J Haematol* 1970;19:135-137.

Journal article, more than four authors

3. Golomb HM, Vardiman J, Sweet DL, et al. Hairy cell leukemia: Evidence for the existence of a spectrum of functional capabilities. *Br J Haematol* 1968;38:161-162.

Journal article in press

4. O'Malley JE, Eisenberg L. The hyperkinetic syndrome. Semin Psychiatry (in press)
   (Note: A copy of the manuscript must be included.)

Complete book

5. Lillie RD. Histopathologic Technique and Practical Histochemistry (ed 4). New York, NY: Blakiston: 1965:39-41.

Chapter of book

6. Moore G, Minowada J. Human hemopoietic cell lines: A progress report. In: Farnes P. *Hemic Cells in Vitro, vol. 4.* Baltimore, MD: Williams & Wilkins: 1968:100-105.

Editing Assistance

You can obtain help with preparing your manuscript from the Medical Editing Department, which is an interregional resource available to 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. Just call Medical Editing at 510-987-3573.

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 1/2" 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 2x3, no larger than 5x7)
___ 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

The Permanente Journal