



The Permanente Journal

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Mission: *The Permanente Journal* is written and published by the clinicians of the Permanente Medical Groups and KFHP to promote the delivery of superior health care through the principles and benefits of Permanente Medicine.



On the cover: "Things That Are Round" by Marsha Balian, NP, is an acrylic on canvas. Ms Balian is self-taught and loves to use highly saturated color. She feels her work can be occasionally confrontational but always has a humorous edge. She is increasingly aware of how the issue of

family plays into our lives, not just as it has impacted our pasts but how each of us weaves the desire for family (traditional or not) or connection with the world into the fabric of our lives. This concept leads her as a Nurse Practitioner to a continued focus on the lives of women and children as the subject of her art.

Ms Balian is a Nurse Practitioner in the Ob/Gyn Department at the Oakland Medical Center in California.

More of Ms Balian's art can be found on pages 35 and 72.

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A Focus on Women's Health

Guest Editor: Ruth Shaber, MD

This special edition of *The Permanente Journal* features a sampling of the excellent research, innovative programs, and health education that Kaiser Permanente has developed to address women's health needs. These programs, and others like them, constantly improve the quality of the health care we provide to our female members.

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Submitting Artwork: Send us a high-quality color photograph of your art no smaller than 4"x5" and no larger than 8"x10". Please include a cover letter explaining Kaiser Permanente association, art background, medium and a brief statement about the artwork (description, inspiration, etc). Electronic and e-mail submissions are accepted; 600 dpi resolution is required.

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Women's Health Kaiser Permanente— Improving Women's Lives through Health Care Research, Innovation, and Education



Guest Editor
Ruth Shaber, MD
Director of Women's
Health for Northern
California

What is “Women’s Health”? Women’s Health is medical practice that touches all aspects of women’s lives—from daily wellness and “thriving” to access to quality medical care. It includes medical research that takes into account gender differences—both biologic and sociologic. It includes innovative programs that constantly push the envelope to provide the highest quality and service. It includes providing superior health education materials that are easy to access and assists women in caring for themselves and their families. It includes providing the best evidence-based education for the doctors and nurses who take care of women when they are sick.

Permanente physicians are committed to evidence-based medicine. But sometimes the evidence doesn’t exist in the literature—and we must do our own research to answer our questions about how to best manage our patients. Throughout the Kaiser Permanente (KP) Regions, research studies are designed, the data are analyzed, the answers are applied to our clinical practice, and new innovative programs are born. KP is uniquely capable of translating research into clinical practice that directly improves patient care.

Innovative programs are often piloted in single medical centers. Through ongoing quality analysis and our rich communications network, programs that are successful are then recreated and restyled from one medical center to the next—and often from one region to the next.

Excellent examples of this process can be seen in the article by Leslie Lieberman, MSW; Cosette Taillac, LCSW; and Nancy Goler, MD, on the Early Start Program (page 62). The clinical need to develop a new way to care for pregnant women with substance abuse problems was identified more than 15 years ago. The key component to Early Start is recognizing that all

women need to be screened—both with surveys and toxicology screening. Once women are identified as being at risk, they are managed within the prenatal clinics—using on-site specialists that are part of the obstetrical care team to provide the unique counseling that pregnant women need. Well-constructed research studies showed that this type of identification and intervention could not only help pregnant women stay off drugs but could save money by decreasing hospital admissions for newborns. This program has now been successfully implemented throughout KP Northern California—and is being considered by several other KP Regions for adoption.

The Perinatal Nursing Service is another fine example of how provocative research can translate into groundbreaking clinical practice. Yvonne Crites, MD; Jenny Ching, RN; Connie Lessner, RN; and Deborah Ray, MD, describe this program, which was born at a time when commercial home-monitoring technologies were taking over the management of preterm labor patients (page 37). Permanente researchers suspected that there must be a better way to care for these women. Once the best strategy for managing preterm labor was identified, the Perinatal Nursing Service was created to provide case management. During the past decade, the program has grown to include many medical centers—and has expanded to include different high-risk obstetrical conditions. Because of ongoing outcome assessment, the program is now positioned to be expanded as an interregional program.

Early Start and the Perinatal Nursing Service are just two examples of the fantastic research and innovation that is going on within KP around the country. As you look through this collection of articles from our colleagues, keep in mind that you are only seeing the tip of the iceberg. Permanente researchers and clinicians are constantly striving to create an even better product for our members and patients. It’s what we do best. ❖

KP is uniquely capable of translating research into clinical practice that directly improves patient care.

From Our Readers ...

Dear Editor,

I've been a proud Kaiser Permanente employee for the past 30 years, 22 of these as an Ob/Gyn nurse practitioner in San Francisco. I read with interest Sam Averett's article titled "Truth in Advertising" in the Summer 2004 issue of *The Permanente Journal*. Mr Averett points out that with the new advertising campaign, KP is "marking a significant change in the way we talk about our organization and our relationship with our members" It is my hope that all future KP advertisements, broadcast widely on the radio and television, will include the mention of choosing a nurse practitioner as a primary care provider. This surely would be "truth in advertising." Having choice increases the potential to *thrive*.

Thank you,
Winifred L Star, RNC, NP, MS
Department of Obstetrics and
Gynecology, Kaiser Permanente
Medical Center
San Francisco, CA

Dr Felitti,

I just read your article entitled *Sleep-Eating and the Dynamics of Morbid Obesity, Weight Loss, and Regain of Weight in Five Patients* (Spring 2001). Unfortunately, I suffer from sleep-eating, in which I do not recall the activity the following morning. I am a 33-year-old male, and I do not recall a history of abuse of any type. The more I attempt to diet, the more frequently I seem to sleep-eat and with greater quantities of food. On average, it strikes every other night. I am at a loss of where to turn and would appreciate some advice or perhaps a referral to some other material on this subject.

Thank you in advance,
NA

— Reply

Dear NA,

How did you ever find the article from The Permanente Journal? Perhaps answering the following questions could be a start:

- *How much do you weigh now, at what height?*
- *When did you first start sleep-eating?*
- *When did you first start putting on weight?*
- *In what state do you live (for a possible referral)?*

I'm not aware of materials more current than those cited in the article, but you might check Google® and the National Library of Medicine (PubMed on the Internet). Search for "sleep eating" with, and without, the hyphen. If you lived in the Southern California area, I'd suggest Ericksonian hypnotherapy as a treatment modality. A good article on the subject, by Dr Brian Alman, in another issue of The Permanente Journal, can be found on the Internet at <http://xnet.kp.org/permanentejournal/Fall01/hypnosis.html>. You might contact Dr Alman at BAman9931@cox.net to see if he has any additional thoughts. Please let me know the outcome of all this; there is much to be learned about this uncommon condition, and you can help us all.

Vincent J Felitti, MD, Book Review Editor

Let us hear from you.

We encourage you to write, either to respond to an article published in the *Journal* or to address a clinical issue of importance to you. You may submit letters by mail, fax, or e-mail.

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Abstracts of Articles Authored or Coauthored by Permanente Physicians

Selected by Daphne Plaut, MLS, Librarian, Center for Health Research

From Southern California:

The relationship of sex to asthma prevalence, health care utilization, and medications in a large managed care organization.

Schatz M, Camargo CA Jr. *Ann Allergy Asthma Immunol* 2003 Dec;91(6):553-8.

BACKGROUND: Age-related sex differences in asthma hospitalizations and emergency department (ED) visits have been reported, but relationships of these differences to disease prevalence and outpatient management have not been defined.

OBJECTIVE: To define the relationships of sex to asthma-related health care utilization and medications, accounting for age-related differences in asthma prevalence.

METHODS: Computerized data from Southern California Kaiser Permanente were used to identify asthmatic patients, aged 2 to 64 years, enrolled continuously during 1999 and 2000. Age-specific asthma prevalence in 1999 was calculated to identify ages of male or female predominance. Males and females were compared with regard to asthma-related health care utilization outcomes (outpatient clinic visits, ED visits, and hospitalizations) and medication use (beta-agonists, inhaled steroids, and oral steroids). Hospitalizations, ED visits, and oral steroid use were considered markers of disease severity.

RESULTS: Of the 60,694 subjects, the female-male prevalence ratio was approximately 35:65 at each age between 2 and 13 years, it was inverse (65:35) between the ages of 23 and 64 years, and prevalences were relatively similar at the ages of 14 to 22 years. In patients aged 2 to 13 years, most utilization and medication variables were significantly greater in males ($p < .01$). Females aged 14 to 22 years had more outpatient and ED visits and used more oral steroids than males. In patients aged 23 to 64 years, all utilization variables were significantly greater in females,

except beta-agonist use and mean inhaled steroid dispensings.

CONCLUSIONS: Asthma utilization and severity appear greater in males aged 2 to 13 years, somewhat greater in females aged 14 to 22 years, and definitely greater in females aged 23 to 64 years. The mechanisms for these striking sex differences merit further investigation.

CLINICAL IMPLICATION: Asthma is known to be more common in males under age 15 and in females older than age 15. It has been less clear that disease severity follows the same age distribution, above and beyond the effect of prevalence. The most important finding in this study is that adult women experience more severe asthma, even after accounting for prevalence, management, and other severity factors. Female gender needs to be considered an independent severity marker in adults and management intensity adjusted accordingly. —MS

From the Northwest:

Income inequality and pregnancy spacing.

Gold R, Connell FA, Heagerty P, Bezruczka S, Davis R, Cawthon ML. *Soc Sci Med* 2004 Sep;59(6):1117-26.

We examined the relationship between county-level income inequality and pregnancy spacing in a welfare-recipient cohort in Washington State. We identified 20,028 welfare-recipient women who had at least one birth between July 1, 1992, and December 31, 1999, and followed this cohort from the date of that first in-study birth until the occurrence of a subsequent pregnancy or the end of the study period. Income inequality was measured as the proportion of total county income earned by the wealthiest 10% of households in that county compared to that earned by the poorest 10%. To measure the relationship between income inequality and the time-dependent

risk (hazard) of a subsequent pregnancy, we used Cox proportional hazards methods and adjusted for individual- and county-level covariates. Among women aged 25 and younger at the time of the index birth, the hazard ratio (HR) of subsequent pregnancy associated with income inequality was 1.24 (95% CI: 0.85, 1.80), controlling for individual-level (age, marital status, education at index birth; race, parity) and community-level variables. Among women aged 26 or older at the time of the index birth, the adjusted HR was 2.14 (95% CI: 1.09, 4.18). While income inequality is not the only community-level feature that may affect health, among women aged 26 or older at the index birth it appears to be associated with hazard of a subsequent pregnancy, even after controlling for other factors. These results support previous findings that income inequality may impact health, perhaps by influencing health-related behaviors.

Reprinted from Social Science and Medicine, volume 59, Gold R, Connell FA, Heagerty P, Bezruczka S, Davis R, Cawthon, ML, Income inequality and pregnancy spacing, 1117-26, Copyright 2004, with permission from Elsevier.

From the Northwest:

Cost-effectiveness of a tailored intervention to increase screening in HMO women overdue for Pap test and mammography services.

Lynch FL, Whitlock EP, Valanis BG, Smith SK. *Prev Med* 2004 Apr;38(4):403-11.

BACKGROUND: Research has established the societal cost-effectiveness of providing breast and cervical cancer screening to women. Less is known about the cost of motivating women significantly overdue for services to receive screening.

METHODS: In this intent-to-treat study, a total of 254 women, aged 52-69, who were overdue for both Pap test and mammography, were randomized to two groups, a tailored, motivational outreach or usual care. For ef-

fectiveness, we calculated the percent of women who received both services within 14 months of randomization. We used a comprehensive cost model to estimate total cost, per-participant cost, and the incremental cost-effectiveness of delivering the outreach intervention from the health plan perspective. We also conducted sensitivity analyses around two key parameters, target population size and level of effectiveness.

RESULTS: Compared with usual care, outreach ($p = 0.006$) screened significantly more women. The intervention cost US \$167.62 (2000 US dollars) for each woman randomized to outreach, and incremental cost-effectiveness of outreach over usual care was US \$818 per additional woman screened. Sensitivity analyses estimated incremental cost-effectiveness between US \$19 and US \$90 per additional woman screened.

CONCLUSIONS: Larger health plans can likely increase Pap test and mammography services in this population for a relatively low cost using this outreach intervention.

Reprinted from Preventive Medicine, volume 38, Lynch FL, Whitlock EP, Valanis BG, Smith SK, Cost-effectiveness of a tailored intervention to increase screening in HMO women overdue for Pap test and mammography services, 403-11, Copyright 2004, with permission from Elsevier.

From the Northern California, Southern California, Northwest, Hawaii, and Colorado:

Reason for late-stage breast cancer: absence of screening or detection, or breakdown in follow-up?

Taplin SH, Ichikawa L, Yood MU, et al. J Natl Cancer Inst 2004 Oct 20;96(20):1518-27.

BACKGROUND: Mammography screening increases the detection of early-stage breast cancers. Therefore, implementing screening should reduce the percentage of women who are diagnosed with late-stage disease. However, despite high national mammography screening rates, late-stage breast cancers still occur, possibly because of failures in screening implementation.

METHODS: Using data from seven health care plans that included 1.5 million women aged 50 years or older, we conducted retrospec-

tive reviews of chart and automated data for three years before 1995-99 diagnoses of late-stage (metastatic and/or tumor size ≥ 3 cm; case subjects, $n = 1347$) and early-stage breast cancers (control subjects, $n = 1347$). We categorized the earliest screening mammogram during the period 13-36 months before diagnosis as none (absence of screening), negative (absence of detection), or positive (potential breakdown in follow-up). We compared the proportion of case and control subjects in each category of screening implementation and estimated the likelihood (odds ratio [OR] with 95% confidence intervals [CIs]) of late-stage breast cancer. We also evaluated demographic characteristics associated with absence of screening in women with late-stage disease. All statistical tests were two-sided.

RESULTS: Absence of screening, absence of detection, and potential breakdown in follow-up were distributed differently among case (52.1%, 39.5%, and 8.4%, respectively) and control subjects (34.4%, 56.9%, and 8.8%, respectively) ($p = .03$). Among all women, the odds of having late-stage cancer were higher among women with an absence of screening (OR = 2.17, 95% CI = 1.84 to 2.56; $p < .001$). Among case patients, women were more likely to be in the absence-of-screening group if they were aged 75 years or older (OR = 2.77, 95% CI = 2.10 to 3.65), unmarried (OR = 1.78, 95% CI = 1.41 to 2.24), or without a family history of breast cancer (OR = 1.84, 95% CI = 1.45 to 2.34). A higher proportion of women from census blocks with less education (58.5% versus 49.4%; $p = .003$) or lower median annual income (54.4% versus 42.9%; $p = .004$) were in the absence-of-screening category compared with the proportion for the other two categories combined.

CONCLUSIONS: To reduce late-stage breast cancer occurrence, reaching unscreened women, including elderly, unmarried, low-income, and less-educated women, should be made a top priority for screening implementation.

Taplin SH, Ichikawa L, Yood MU, et al. Reason for late-stage breast cancer: absence of screening or detection,

or breakdown in follow-up? Journal of the National Cancer Institute 2004; 96(20):1518-27, by permission of Oxford University Press.

CLINICAL IMPLICATION: One advantage of integrated health plans like KP is existence of data such as information enabling us to identify women who have not had mammography screening for two years. These women can be reminded to get their mammogram or to come in for a discussion of mammography with their physician. Our study suggests that such activity may be the most important one for reducing late-stage cancer and require less correspondence than sending reminders to all age-eligible women. Our study also suggests that more should be done to improve radiologist's interpretations. -ST

From Hawaii:

Dairy intake is associated with lower body fat and soda intake with greater weight in adolescent girls.

Novotny R, Daida YG, Acharya S, Grove JS, Vogt TM. J Nutr 2004 Aug;134(8):1905-9.

Body fat and weight of 9- to 14-year-old girls ($n = 323$) from KP were studied in relation to age, ethnicity, and physical activity. Mean age, calcium intake, weight, and iliac skinfold thickness were 11.5 ± 1.4 years, 736.5 ± 370.7 mg/d, 44.6 ± 13.0 kg, and 12.4 ± 6.1 mm, respectively. Multiple regression with age, ethnicity, height, Tanner breast stage, physical activity, energy, soda, and calcium intake explained 17% of the variation in iliac skinfold thickness. Calcium intake, age, and physical activity were significantly negatively associated with iliac skinfold thickness whereas height, Tanner breast stage, and Pacific Islander ethnicity were significantly positively associated ($p < 0.0001$, $R(2) = 0.165$). Substituting total calcium with dairy and non-dairy calcium in separate models accounted for 16 and 15% of the variance, respectively ($p < 0.0001$, both models); 1 mg of total and dairy calcium was significantly associated with 0.0025 mm ($p = 0.01$) and 0.0026 mm ($p = 0.02$) lower iliac skinfold thickness. Thus, one milk serving was associated with 0.78 mm iliac skinfold thickness. The interaction of Asian

ethnicity and dairy intake was significant ($p = 0.027$). Nondairy calcium was not associated with weight or iliac skinfold thickness. Soda intake was significantly positively associated with weight in both models ($p = 0.01$, both models). Decreasing soda and increasing dairy consumption among Asians may help maintain body fat and weight during adolescence. *Reprinted with permission from The American Society for Nutritional Sciences.*

CLINICAL IMPLICATION: Our study suggests that replacing soda with dairy and other calcium-rich foods may help prevent overweight, especially of the midregion of the body, which is known to be important to prevent chronic diseases. This association was true for adolescents and especially for Asians and was stronger for dairy than nondairy foods. Potential for a slim waist provides another reason to recommend calcium and dairy intake to young people of diverse backgrounds. –RN

From Southern California:
Rates of multiple birth before and after fortification of food with folic acid, 1994-2000 [abstract].

Lawrence JM, Watkins M, Chiu V, Erickson JD, Petitti DB. Am J Epidemiol 2004 Jun 1;159(11 Suppl):S86.

BACKGROUND: Fortification of foods with folic acid (FA) began in 1998. The potential effect of fortification on rate of multiple births continues to be a source of concern.

METHODS: Women who had a live birth in 11 hospitals of a large managed health care organization from January 1, 1994 through December 31, 2000 were identified using the perinatal services system (PSS) database. We ascertained multiple births and the use of ovulation-inducing drugs (clomiphene citrate and menotropins) by reviewing computer-stored data. A random sample of medical records was reviewed to determine whether the use of other assisted reproductive technologies (ART) had changed during the same period.

RESULTS: There were 224,963 live births during the study period; births per year ranged from a low of 27,119 in 1994 to a high of 35,408 in 2000. We identified 3035 multiple births for a rate of 1.41 multiple births per

100 live births during the seven-year study period. The rate of multiple births per 100 live births remained stable over the seven years of the study (1.36, 1.40, 1.44, 1.42, 1.34, 1.41, and 1.48, respectively). When women who had a prescription for an ovulation-inducing drug filled within 12 months of the birth (9.6% of the multiple births) were excluded, the overall rate of multiple birth was 1.27. (1.27, 1.26, 1.32, 1.32, 1.24, 1.24, 1.26, respectively). Use of ART increased through 1997 but decreased thereafter.

DISCUSSION: This study shows that there is no temporal relationship between the multiple birth rate and the implementation of food fortification with folic acid in the United States in this large population-based study.

Lawrence JM, Watkins M, Chiu V, Erickson JD, Petitti DB. Rates of multiple birth before and after fortification of food with folic acid, 1994-2000 [abstract], American Journal of Epidemiology 2004; 159:S86 by permission of Oxford University Press.

From Southern California:
Differences in serum folate values at first prenatal visit by race/ethnicity, vitamin use, and body mass index, 1999-2000 [abstract].

Lawrence JM, Watkins M, Chiu V, Erickson JD, Petitti DB. Am J Epidemiol 2004 Jun 1;159(11 Suppl):S76.

BACKGROUND: Fortification of foods with folic acid (FA) began in 1998. The effect of fortification on folate levels in women in different demographic groups is of interest.

METHODS: Serum folate was quantified using the ADVIA[‡] Centaur, Immunoassay System on 12,526 women entering prenatal care at five KP medical centers from 1999-2000. Information on use of vitamins containing FA, body mass index (BMI), race/ethnicity, and age was obtained from a survey and from the infant's birth certificate. Women who used vitamins when they became pregnant and at the time of first prenatal visit were considered vitamin users; women who did not use them at either time were considered vitamin non-users.

RESULTS: The median folate value was 19.7 ng/mL in the study population (mean age 28±6 years; range 13-45 years). The median folate value for vitamin users was 24.0 ng/mL, compared to 16.7 ng/mL for non-users.

Among vitamin non-users, Caucasian women had the highest folate values (median = 17.7 ng/mL). African-American women had the lowest values (median = 15.9 ng/mL). Values for Hispanic and Asian/Pacific Islander women were intermediate (median = 16.5 ng/mL). Among vitamin non-users, the median values decreased slightly as BMI increased (17.4 ng/mL, 16.7 ng/mL, 16.2 ng/mL for average weight, obese and very obese women respectively), but these differences are not likely to be clinically significant.

DISCUSSION: Other data show that food fortification with FA has had a significant impact on serum folate values nationally. This study shows that racial differences in folate status of women of childbearing age persist.

Lawrence JM, Watkins M, Chiu V, Erickson JD, Petitti DB. Differences in serum folate values at first prenatal visit by race/ethnicity, vitamin use, and body mass index, 1999-2000 [abstract], American Journal of Epidemiology 2004, 159, S76, by permission of Oxford University Press.

From the Northwest:
Diagnoses and outcomes in cervical cancer screening: a population-based study.

Insinga RP, Glass AG, Rush BB. Am J Obstet Gynecol 2004 Jul;191(1):105-13.

OBJECTIVE: This study was undertaken to examine routine cervical cancer screening diagnoses and outcomes on an age-specific basis in a US population.

STUDY DESIGN: We conducted an observational cohort study using 1997-2002 health plan administrative and laboratory data for women enrolled at KP Northwest (Portland, OR) in 1998.

RESULTS: Across all female enrollees ($n = 150,052$), the annual rate of routine cervical cancer screening was 294.7 per 1000, with cytologic abnormalities detected at a rate of 14.9 per 1000. The annual incidence of cervical intraepithelial neoplasia (CIN) 1 was 1.2 per 1000 with a rate of 1.5 per 1000 for CIN 2/3. CIN 1 incidence peaked among women aged 20 to 24 years (5.1 per 1000), with CIN 2/3 rates highest among those 25 to 29 years (8.1 per 1000). From among 44,493 routine cervical smears, results were normal for 94.5%, with abnormal diagnoses of atypical squamous cells (3.3%), atypical glandular cells (0.2%), low-

grade squamous intraepithelial lesion (1.2%), high-grade squamous intraepithelial lesion (0.3%), and inconclusive/inadequate (0.5%). Of women with abnormal routine smears, CIN or cancer was detected on follow-up in 19.4% of cases, 51.5% were found to have had a false-positive smear, and 29.0% incomplete follow-up as defined by published management guidelines.

CONCLUSION: These are the first comprehensive age-specific estimates of routine cervical cancer screening diagnoses and outcomes to be reported within a US general health care setting. Overall, 5% of routinely screened women were found to have an abnormal cervical smear with an annual incidence of CIN across all female enrollees of 2.7 per 1000. *Reprinted from American Journal of Obstetrics and Gynecology, v191(1), Insinga RP, Glass AG, Rush BB. Diagnoses and outcomes in cervical cancer screening: a population-based study, 105-13, Copyright 2004, with permission from Elsevier.*

CLINICAL IMPLICATION: Approximately 1 in 20 women receiving routine cervical cancer screening will require follow-up for an abnormal Pap smear. The widespread adoption of Pap screening has been successful in reducing the incidence of cervical cancer in the US. However, this study also suggests that opportunities exist for improving the quality and efficiency of patient management, such

as by reducing the number of women with an abnormal smear who have incomplete follow-up and by decreasing Pap screening among women over the age of 65 who are at low risk for cervical cancer. -RI

From Colorado, Georgia and Northwest:

Prescription drug use in pregnancy.

Andrade SE, Gurwitz JH, Davis RL, et al. Am J Obstet Gynecol 2004 Aug;191(2):398-407.

OBJECTIVE: The purpose of this study was to provide information on the prevalence of the use of prescription drugs among pregnant women in the United States.

STUDY DESIGN: A retrospective study was conducted with the use of the automated databases of eight health maintenance organizations that are involved in the Health Maintenance Research Network Center for Education and Research on Therapeutics. Women who delivered of an infant in a hospital from January 1, 1996, through December 31, 2000, were identified. Prescription drug use according to therapeutic class and the United States Food and Drug Administration risk classification system was evaluated, with the assumption of a gestational duration of 270 days, with three 90-day trimesters of pregnancy, and with a 90-day period before pregnancy. Non-prescription drug use was not assessed.

RESULTS: During the period 1996 through 2000, 152,531 deliveries were identified that met the criteria for study. For 98,182 deliveries (64%), a drug other than a vitamin or mineral supplement was prescribed in the 270 days before delivery: 3595 women (2.4%) received a drug from category A; 76,292 women (50.0%) received a drug from category B; 57,604 women (37.8%) received a drug from category C; 7333 women (4.8%) received a drug from category D, and 6976 women (4.6%) received a drug from category X of the United States Food and Drug Administration risk classification system. Overall, 5157 women (3.4%) received a category D drug, and 1653 women (1.1%) received a category X drug after the initial prenatal care visit.

CONCLUSION: Our finding that almost one half of all pregnant women received prescription drugs from categories C, D, or X of the United States Food and Drug Administration risk classification system highlights the importance of the need to understand the effects of these medications on the developing fetus and on the pregnant woman. ❖

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Using Our Talents

We can't take any credit for our talents.
It's how we use them that counts.

— Madeleine L'Engle, b 1918, American author

10th Annual HMO Research Network Conference

Abstracts from the HMO Research Network

In the Fall 2004 issue, we published the first abstract from the HMO Research Network annual meeting in May 2004. In this issue we present several more. I believe publishing these abstracts creates an opportunity for Permanente physicians and clinicians to learn from the research findings in like integrated groups and health systems from other parts of the country. We will continue to share this important research in future issues.

—Tom Janisse, MD, Editor-In-Chief

May 3-5, 2004 Dearborn, MI
Evaluating Care Delivery

From: HealthPartners Research Foundation

Screening clinical breast examination sensitivity, specificity, and predictors of accuracy.

Rolnick SJ, Fenton JJ, Elmore JG on behalf of the CRN PROTECTS Group.

BACKGROUND: Although many US women receive regular screening clinical breast examination (CBE), the accuracy of CBE in the community setting remains uncertain.

METHODS: We determined the accuracy of CBE among asymptomatic female health plan enrollees in five states (WA, OR, CA, MA, and MN). Among women who received a screening CBE within one year of breast cancer diagnosis and who subsequently died of breast cancer (N = 485), sensitivity was estimated as the proportion of women whose most recent CBE was abnormal. Among women without a breast cancer diagnosis in the year following a screening CBE (N = 1427), specificity was estimated as the proportion whose screening CBE was normal. Bivariate and logistic regression analyses identified patient characteristics associated with CBE accuracy.

RESULTS: Among women who subsequently died of breast cancer, the sensitivity of screen-

ing CBE was 21.6% (95% CI: 18.1%, 25.6%). Decreased sensitivity was associated with: estrogen use at the time of CBE (OR 0.23; CI = 0.07-0.80) and concurrent receipt of a Pap smear (OR 0.45; CI = 0.27-0.72). There were non-significant trends toward decreased sensitivity among women with a family history of breast cancer and increasing chronic disease comorbidity. Specificity of screening CBE was 98.6% (95% CI = 97.8%, 99.0%). Both a family history of breast cancer (OR: 0.31, CI = 0.13, 0.78) and history of breast biopsy (OR 0.22, CI = 0.09, 0.55) were independently associated with decreased specificity.

CONCLUSIONS: Screening CBE provided in the community is less sensitive but more specific than in clinical trials of breast cancer screening.

From: The Henry Ford Health System Hormone replacement therapy utilization pre- and post- women's health initiative HRT trial termination.

Wegienka G, Havstad S.

BACKGROUND: In July 2002, the Women's Health Initiative Study published their conclusions that led to the early termination of the hormone replacement therapy (HRT) trial of estrogen plus progestin in postmenopausal women with an intact uterus. In *JAMA*, they reported an increased risk of breast cancer, but also a decreased risk of osteoporosis. While the findings were headline news across the nation, it is not clear whether they impacted clinical practice or the health behavior of women.

METHODS: Using claims data from 15,493 women ages 50-79 continuously enrolled in the Health Alliance Plan HMO from January 2001 through November 2003, we examined the counts of HRT prescriptions filled by this fixed cohort in the 18 months before and after the WHI results were published. Using the claims data, we were not able to determine whether each woman had an intact

uterus or their exact menopausal status.

RESULTS: Overall, the number of HRT prescriptions filled decreased over time. However, in the months immediately after July 2002, there was a steep drop in the number of HRT prescriptions filled by the fixed cohort. In January 2001, 2320 HRT scripts were filled, 1973 in June 2002, 1837 in July 2002, 1617 in August 2002, 1467 in September 2002 and 742 in November 2003. The number of new HRT users increased through the first half of 2002 and dropped continuously after peaking in June 2002. The patterns observed were similar for the most commonly filled prescription, Premarin (estrogen plus progestin/Wyeth-Ayerst), and all other HRT medications.

CONCLUSIONS: It appears that the publication of the WHI results and their subsequent discussion in the press affected the use of HRT in our study population. It is not clear whether the women, their clinicians, or both were the driving forces behind this reaction. However, the symptoms of menopause, such as hot flashes, sleeplessness and bone loss, can be disabling, while some women have no symptoms. Future research should study the appropriateness of HRT given the different circumstances women may encounter with menopause.

From: HealthPartners Research Foundation

Women and hormone use in the light of new evidence.

Rolnick S, Kopber R, Kelley M.

BACKGROUND: Prior to the findings of the Women's Health Initiative (WHI), it was believed that hormone therapy (HT) provided numerous health benefits. With WHI, however, considerable doubt was raised regarding prior assumptions. To better understand what women who were using HT are doing and thinking in the light of recent findings, we conducted a survey. Its purpose was to assess HT usage (maintenance, discontinua-

tion or change), health behaviors, symptom control and overall concerns.

METHODS: Women who had a prescription for HT (PremPro or FemHTR) between 1/1/2002 and 6/30/2002 were identified through pharmacy records and stratified by duration of hormone use (recent users [<1 year], women with 1-5 years of use and long-term users [>5 years]). A random sample of 10% from each stratum was selected for a total of 1200 subjects. Surveys were mailed with questions on hormone use, awareness of study findings, changes in medication use or health behaviors, what influenced changes, symptoms, use of alternative medications and overall concerns.

RESULTS: The response rate was 70%. Of these, 69% claimed they discontinued HT. The main reasons stated for starting HT were symptom relief (70%), and bone health (46%). Many women (35%) did not consider how long they would take hormones. However of those that did, only 21% thought it would be short term. Most assumed they would continue on HT "as long as they felt okay." When asked how they learned of the new study findings, twice as many cited television and magazines than their health plan. Only 19% claimed to make no changes, others discontinued, stopped then restarted, or changed their HT. Minimal change was reported in use of alternative medications or in lifestyle.

CONCLUSIONS: Women appear to be heeding the warnings and taking initiative for changes regarding HT, rather than being encouraged

at the initiation of their providers. They are concerned about current symptom control and also if past usage puts them at risk for future health problems.

From: Kaiser Permanente Southern California and Harvard Pilgrim Health Care

Procedures and complications after bilateral prophylactic mastectomy.

West CN, Barton MB, Liu AI, Geiger AM for the Cancer Research Network PROTECTS Group; Southern California Permanente Medical Group, Pasadena, CA; Harvard Pilgrim Health Care, Boston, MA.

BACKGROUND: While highly efficacious, little is known about the complications or subsequent procedures needed to rectify complications or cosmetic problems after bilateral prophylactic mastectomy. Complications and procedures occurring after bilateral prophylactic mastectomy were the focus of the study.

METHODS: We used automated hospitalization and cancer registry records to identify women who underwent bilateral mastectomy without breast cancer at one of six health maintenance organizations between 1979 and 1999. Confirmation of bilateral mastectomies being done for prophylactic reasons, identification of the timing of initial reconstruction and ascertaining complications and subsequent procedures were done by structured medical record review.

RESULTS: During the study period, 270 women

underwent bilateral prophylactic mastectomy. Median age of women at surgery was 44 years (range 23 to 74) and the majority (90%) were Caucasian. The majority of women (179, 66%) had simultaneous reconstruction but 36 (13%) had delayed reconstruction and 55 (20%) had none. After bilateral prophylactic mastectomy 466 complications occurred in 171 (63%) women, with a median of two per woman (range 1 to 13). More than half (55%) required repair, including excessive scarring and implant leakage or rupture. About a third (167, 36%) were temporary, including hematoma, hemorrhage and infection. The remaining 42 (9%) complications were permanent or psychological, including lymphedema and depression. A total of 822 subsequent procedures were performed in 167 (62%) women, with a median of four per woman (range 1 to 22) and the majority (766, 93%) were cosmetic in nature. Complications and subsequent procedures were less common in women with no reconstruction (χ square $p = 0.067$ and $p \leq 0.001$, respectively) but occurred in nearly identical proportions among women with simultaneous or delayed reconstruction (χ square $p = 0.764$ and $p = 0.958$, respectively).

CONCLUSIONS: Women undergoing bilateral prophylactic mastectomy may experience a range of complications and after reconstruction additional procedures may be required. The risks and the potential benefits of bilateral prophylactic mastectomy need to be weighed by women and their physicians. ❖

Trails and Mountains

May your trails be crooked, winding, lonesome, dangerous, leading to the most amazing view.

May your mountains rise into and above the clouds.

— Edward Abbey, 1927-1989, naturalist and author

Why Research at KP?



Joseph Selby, MD

The impressive collection of Kaiser Permanente (KP)-generated research and implementation studies in women's health presented in this issue of *The Permanente Journal* suggests that many within our organization already understand why research in this area and in our settings is important. We start with the unique research opportunities created by the size of our membership and the integrated databases describing our members' health and health care. Motivation is increased by the realization that most KP members stay with KP for many years, providing a strong rationale for preventing the onset and progression of illness and for efforts to enhance patient understanding and satisfaction with care. Add to that the large numbers of researchers based in our regional research centers across the program who have dedicated their careers to understanding the biological and clinical factors that affect women's health and illness. To that, we add the rapidly growing numbers of clinicians and other clinical staff who have recognized that they can contribute to improving the care we deliver to women members through research, innovation, and evaluation.

We start with the unique research opportunities created by the size of our membership and the integrated databases describing our members' health and health care.

As you'll see, current research includes epidemiologic studies that aim to better understand the origins of various illnesses that are common in women, including breast and cervical cancer and gestational diabetes. Numerous examples of research evaluate KP innovations in areas such as perinatal substance abuse detection and prevention, and domestic violence prevention. Outcomes studies evaluate newer clinical interventions, including newer surgical methods and medications.

Increasingly, KP clinicians are participating in large clinical trials in this and other clinical areas, providing KP members opportunities to participate in cutting-edge science and possibly to benefit from experimental therapies. Clinical trials can also help our physicians keep up to date with the newest thinking in their

fields and can enhance KP's image as a provider of the highest-quality care. At this point, the relevant question may have shifted from "Why research at KP?" to "Why not more research at KP?" Whether we can successfully build an even more prominent research enterprise will depend on how KP organizes and deploys its resources to support research and the individuals conducting that research. ♦

Joseph Selby, MD, is a family physician and the director of KP Division of Research. He serves as a lecturer in the Department of Epidemiology and Biostatistics at UCSF School of Medicine. He has been with the Division of Research since 1985 and serving as director since 1998. E-mail: joe.selby@kp.org.

The Women's Health Research Institute: Mission Overview with Featured Research Projects

By Ruth Shaber, MD

Clinicians should participate in research. This participation in research is essential for validating and promoting innovative, evidence-based practice, and for improving the quality of care we deliver to our members. The Women's Health Research Institute (WHRI)¹ was created in March 2001 to help Kaiser Permanente (KP) physicians and nurse practitioners to conduct clinical research related to women's health.

Historically at The Permanente Medical Group (TPMG), most clini-

cians who wanted to conduct research had to do so on their own time, without any training or administrative support. In addition, the projects selected by these clinician-researchers did not necessarily fit with the strategic goals of the medical group. Many opportunities for interfacility collaboration were not being realized.

The WHRI effectively acts as a broker between clinician-researchers and sponsors and coordinates studies involving more than one KP

site or studies with other academic centers. WHRI projects have been funded by federal and KP grants as well as by grants from pharmaceutical and biotechnology companies. Some WHRI projects are traditional, multicentered clinical trials; others are investigator-initiated research projects.

The WHRI team provides strategic oversight to ensure that projects are consistent with KP's strategic, operational, and quality goals. We assist WHRI investigators

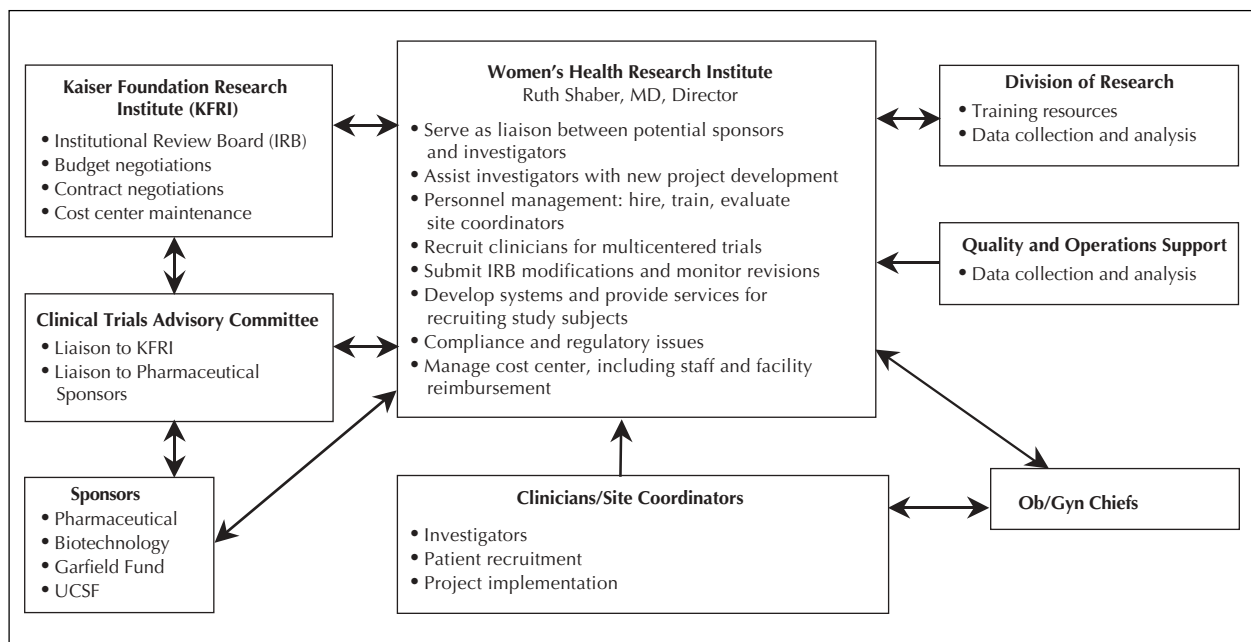


Figure 1. Chart shows relationships between the Women's Health Research Institute (WHRI) and other research institutions or sponsors in Northern California.

Ruth Shaber, MD, joined the Ob/Gyn Department at KP in South San Francisco in 1990. In 2001, she was appointed the Director of Women's Health for the KP Northern California Region. She lives with her husband David, daughter Maddy, and dog Poppy in Redwood City, California. She practices Bikram Yoga twice a week to stay well and thrive. E-mail: ruth.shaber@kp.org.



Special Feature

RESEARCH

... participation in research is essential for validating and promoting innovative, evidence-based practice, and for improving the quality of care we deliver to our members.

with administrative and operational support and training when necessary. We also provide compliance and regulatory oversight for new investigators who may not be familiar with US Food and Drug Administration (FDA) requirements and internal KP requirements for clinical research.

To date, we have supported re-

search by more than 20 KP clinicians in Northern California (Table 1) and have attracted more than \$1.7 million in research funding. Figure 1 depicts the relationship between WHRI and other research bodies in Northern California.

This section on Research in this issue of *The Permanente Journal* features articles by three of our cli-

nician investigators: Tracy Flanagan, MD; Maggie Che, MD; and Debbie Postlethwaite, NP. ❖

Reference

1. Women's Health Research Institute [Web site on the Intranet] [cited 2004 Oct 22]. Available from: <http://kpnet.kp.org/california/womenshealth/research/>.

Table 1. Current research projects supported or coordinated by WHRI

Project title	Investigator	KP facility
Intrauterine contraception: Study to evaluate provider practice and increase utilization	Debbie Postlethwaite, NP Ruth Shaber, MD Victoria Mancuso, MD	South San Francisco South San Francisco Martinez
Evaluation of a Menopause Counseling/Education Intervention	Tracy Flanagan, MD	Richmond
Improving Osteoporosis Screening and Treatment Among Patients with Fragile Fractures	Maggie Che, MD	Vacaville
Relationship of Domestic Violence and Childhood Trauma History to Self-Reported Health Status	Brigid McCaw, MD Jerry Minkoff, MD	Richmond Santa Rosa
Study to Evaluate Self-Reporting of Unintended Pregnancy Among KP Members in Northern California	Debbie Postlethwaite, NP Ruth Shaber, MD Maryanne Armstrong, MA	South San Francisco South San Francisco Division of Research
Feasibility Assessment Preparatory to Research: Primary Prevention of Cardiovascular Disease (CVD) in Women—Pilot Intervention Study	Debbie Postlethwaite, NP Eleanor Levin, MD Reena Bhargava, MD	South San Francisco Santa Clara Santa Clara
The Natural History of CIN-II (Cervical Intra-epithelial Neoplasia II) in Adolescents	Charles Wibblesman, MD Ruth Shaber, MD	San Francisco South San Francisco
An Evaluation of the Surgical Management of Uterine Fibroids	Ruth Shaber, MD Gavin Jacobson, MD Maryanne Armstrong, MA	South San Francisco South San Francisco Division of Research
A Multicenter, Prospective Evaluation of the Adiana System for Transcervical Sterilization (ATSS) Using Electrothermal Energy in Women Aged 18-45 (Clinical Trial)	Joe Zimmerman, MD Mark Glasser, MD	Roseville San Rafael
A Phase III, 12-Month, Randomized, Double-Blind Study to Evaluate the Efficacy and Safety of Two Doses of J867 versus Placebo in Subjects with Uterine Leiomyomata (Clinical Trial)	Ruth Shaber, MD Seth Feigenbaum, MD Michael Nwynn, MD Victoria Mancuso, MD Kimberly Probst, MD	South San Francisco San Francisco Redwood City Martinez Pleasanton
US Clinical Study: Neovanta Medical STAN [®] S21 Fetal Heart Monitor (Clinical Trial)	Jeffrey Maier, MD Mary Klemm, DO Kenneth Grullon, MD Cori Pachtman, MD Victoria Mancuso, MD Joanne Gras, DO	Walnut Creek Antioch Antioch Antioch Martinez Martinez
A Randomized, Multicenter, Double-Blind, Double-Dummy Study to Evaluate the Safety and Tolerability of Intravenous Zoledronic Acid Compared to Oral Alendronate in Postmenopausal Women with Moderate/Severe Osteopenia or Osteoporosis Already Treated with Alendronate (Clinical Trial)	Jerry Minkoff, MD Chienying Liu, MD Seth Feigenbaum, MD	Santa Rosa Santa Rosa San Francisco

Fragile Fracture Care Management Program

By Maggie Che, MD
Bruce Ettinger, MD
Jennifer Johnston, MPH
Alice Pressman, MS
Judy Liang, PharmD

Introduction

Previous osteoporotic fracture is a strong risk factor for recurrent fracture, both in men and in women,^{1,7} yet only one in five patients receive osteoporosis intervention after sustaining a fracture.⁸ In 2003, implementation of a new HEDIS measure assessing health plan performance on postfracture care reflected national recognition of the importance and magnitude of this issue. The HEDIS measure assesses the percentage of women 67 years of age and older who receive either a bone mineral density (BMD) test or a prescription for an osteoporosis drug within six months after sustaining a fracture.

Data available from the Kaiser Permanente Northern California Region (KPNC) in 1999 showed a need to improve our postfracture care. Only 6% of women and <1% of men had received bone densitometry testing after an osteoporotic fracture of the hip, spine, wrist, or humerus. Similarly low percentages were found for initiation of osteoporosis medication for women (7%) and men (2%) (BE, unpublished data, 1999).

The Fragile Fracture Care Management (FFCM) Program was a year-long pilot project implemented in July 2003 at the KP Vacaville Medical Center. The goal of the project was to evaluate efficacy of a care management program in increasing the rate of BMD testing and initiation of osteoporosis medication among women and men who have had a fragility fracture of the wrist, hip, spine, or humerus.

Methods and Key Components of the Program

The design of the FFCM program attempted to satisfy four primary goals: 1) to alert the Primary Care Physician (PCP) of a fracture event; 2) to shift follow-up care to a specially trained Care Manager when appropriate; 3) to use information technology—specifically, an application developed by Pharmacy Analytic Services (PAS) and modeled on the Cholesterol Care Management system—to track and to improve patient flow;

and 4) to implement risk assessment models that would weigh multiple individual risk factors in addition to BMD test results to determine future fracture risk and to qualify patients for osteoporosis treatment.

PCP Alert

Notifying the PCP about a fracture event was a critical component of the FFCM program. Each PCP retained oversight and management of his or her patient's postfracture care. For patients who require further evaluation (eg, because of abnormal laboratory results) or elect not to enroll in the FFCM program, notification and linkage back to the PCP also may improve osteoporosis intervention outcomes. Notification was achieved by sending a letter advising the PCP that his or her patient had suffered a fracture and asking for PCP approval to offer the patient enrollment in the FFCM study.

The FFCM Care Manager

The Fragile Fracture Care Manager (CM) role was staffed with a 0.3-FTE Ambulatory Care Pharmacist. The CM practiced under supervision of the FFCM Physician Champion and under a strict protocol. The CM completed patient risk assessment, provided patient education and counseling (through the Telephone Appointment Visit), and prescribed osteoporosis medication as appropriate. The CM role was supported by a 0.5-FTE Program Assistant (PA), who sent and received patient and PCP letters and managed data collection, computer entry of the risk questionnaire responses, and phone recruitment of patients.

Information Technology Application for Care Management

The capacity for processing a large patient caseload using only minimal staffing was made possible by use of a case management software application developed by Pharmacy Analytic Service (PAS). This FFCM application allowed automation of many key program activities, including identification of fracture patients,

The HEDIS measure assesses the percentage of women 67 years of age and older who receive either a bone mineral density (BMD) test or a prescription for an osteoporosis drug within six months after sustaining a fracture.

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generation of personalized letters to PCPs and their patients, tracking of test results, calculation of individualized risk scores, and creation of a database and record of patients who have sustained a fracture.

Future Fracture Risk Assessment and Treatment Protocol

Individualized risk assessment was considered a critical component of the FFCM program. Intervention that initiates osteoporosis medication solely on the basis of BMD scores might not accurately assess a patient's risk of future fracture.

For women aged 55 through 79 years, we used a risk assessment model developed by Bruce Ettinger, MD (of the KP Division of Research), to estimate the patient's five-year risk of fracture in the spine and hip (BE, unpublished data, 2004). Cutoff points for initiating drug intervention were a five-year fracture risk of 5% for hip fracture (number needed to treat (NNT) = 60) and a five-year fracture risk of 8% for spine fracture (NNT = 30). For patients aged 70 years and older, we used a risk score developed by Black and colleagues⁹ that calculated fracture score from the patient risk questionnaire data. Under that system, cutoff points for initiating drug intervention were a fracture score of 8 (if BMD was measured) or a fracture score of 5 (if BMD was not measured). For women aged 70 through 79 years, we calculated both fracture scores; if either score met criteria for treatment, the patient would be offered osteoporosis medication.

Because no validated risk scores existed for men, we used BMD T-score below -2.5 as the sole criterion for treatment.

Program Methods Participant Selection

Men and women aged 55 years and older who suffered a hip, spine, wrist, or humerus fracture between April 2003 and May of 2004 were identified for possible participation in the program. Patients were excluded if they had died, were listed in the Do Not Contact database, were receiving high-dose corticosteroid drugs, had a known medical or bone condition predisposing them to bone loss for secondary reasons, or were already receiving osteoporosis drugs.

Intervention

The program protocol was approved by the KPNC Institutional Review Board in June 2002. A letter was sent to the PCP to explain the program and to ask for consent to enroll the postfracture patient into the FFCM program. Any PCP who did not respond to the letter

within two weeks received a reminder telephone call for consent.

If consent was obtained from the PCP, patients were mailed a letter explaining the program and inviting their participation within three months after the fracture event. A patient consent form was included in the mailing. Any patient who did not contact the program staff within three weeks received a recruiting telephone call.

All enrolled subjects had a series of laboratory tests to evaluate complete blood count, serum protein (by electrophoresis), serum calcium level, serum TSH level, serum creatinine level, serum AST (SGOT) level, serum intact parathyroid hormone level, and serum 25-hydroxy vitamin D level. Men additionally had serum testosterone level measured at 8:00 am. Women younger than age 70 years and all men received BMD testing using dual-energy x-ray absorptiometry. Historical risk factors were determined from responses to a mailed questionnaire. These risk factors included low body mass index (BMI), current smoking, mother with hip fracture, sister with hip fracture, and inability to rise from chair without using arms.

Each patient who completed the required testing and had no secondary reasons for bone loss received a Telephone Appointment Visit (TAV) from the CM. At each TAV, the CM validated information from the patient risk questionnaire and reviewed each fracture risk score. Patients qualifying for medication were offered a prescription for an antiresorptive agent. Drug-qualifying and nonqualifying enrollees received recommendations for preventing future fracture. The recommendations included advice on fall prevention, calcium and vitamin D supplementation, and preventive health measures.

Results and Discussion

Although full analysis of the data from the FFCM project will not be available until early 2005, the experience gained from program implementation has yielded several preliminary insights for future intervention in the osteoporosis population who have had a fracture.

Patient Barriers Identified

The patient consent rate for enrollment into the FFCM program was lower than anticipated. This result was in part attributed to the recruitment methodology used. Patients who initially qualified for inclusion and received the consent of their PCP received a letter from an unfamiliar physician (ie, the FFCM physician champion) inviting them to enroll in the FFCM after the fracture event. Rates of patient consent might have been improved by direct referral at time of hospital discharge,

direct referral at a visit to the Orthopedics clinic, or direct referral at a follow-up visit with their PCP. In addition, some patients who returned response cards and consented to enroll were unable to complete the required testing. Especially in the elderly population, a major barrier to completing the study was the difficulty of obtaining transportation to complete BMD and laboratory testing.

More Physician Outreach Needed

Because the original design of the program anticipated that most identified patients would be referred to the CM, the pilot study included no physician education component. However, given that many identified patients either actively or passively failed to enroll in the study, the act of alerting the PCP to the fracture event may itself have constituted an intervention. Any future implementation of the FFCM program should include focused training and education of PCPs regarding postfracture evaluation and management.

Preliminary data from the KPNC Department of Quality and Operation Support (QOS) reflecting performance on the HEDIS quality measure for postfracture care indicate that the rate of BMD testing or initiation of osteoporosis medication in the KP Napa-Solano Service Area during the period from July 2003 through December 2003 was double that of the comparison facilities (KPNC medical centers with known osteoporosis intervention programs were excluded from the comparison group). In addition to the rates of BMD testing and prescription for osteoporosis medication, final analysis of the FFCM program will include assessment of the effects of the PCP alert letter alone (ie, BMD testing and osteoporosis prescription rates among patients identified but not enrolled). Results will be available in 2005.

Conclusions

The FFCM program is one of several KP efforts to address performance on the new HEDIS measure. The Hip At Risk Program (HARP), spearheaded by Richard M Dell, MD, and Steve Schelken, MD, in the KP Southern California Region has been implemented at other KP facilities in the KP Southern California, Hawaii, and Mid-Atlantic Regions. However, improved performance on HEDIS should not be our only goal for ensuring high-quality care for our patients with osteoporosis. Ordering BMD tests and appropriate prescribing of antiresorptive medication represent only one part of the solution. Counseling patients on the importance of lifestyle changes (smoking cessation,

alcohol moderation, and exercise), fall prevention, and calcium and vitamin D supplementation are important measures in reducing the debilitating consequences of fragility fractures. As we apply lessons learned from this osteoporosis intervention study, we will continue to make progress in reducing ongoing physician and patient barriers to postfracture care. ❖

Acknowledgments

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Michael T Gee, primary care pharmacist, helped with testing and program implementation. Susan Tweet, Presie Clary, Zevonda Sutton, RN, MSN, PNP, and Cathy Chou, MPA, assisted with development and operations of the Fragile Fracture Care Management Program.

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Counseling patients on the importance of lifestyle changes (smoking cessation, alcohol moderation, and exercise), fall prevention, and calcium and vitamin D supplementation are important measures in reducing the debilitating consequences of fragility fractures.

Intrauterine Contraception: Study to Evaluate Clinical Practice and to Increase Utilization

By Debbie Postlethwaite, RNP, MPH

Introduction

For the past decade, preventing unintended pregnancies has been an important issue for women's health. Against this background, the intrauterine device (IUD) has been established either as the most cost-effective method of contraception (in study models that span two or more years^{1,2}) or the second most cost-effective reversible method (in studies that span two years or less³).

Nonetheless, despite the proven safety and cost-effectiveness of today's IUDs, women who have unintended pregnancies are relying on less effective methods of contraception,⁴ many obstetrics/gynecology professionals in the United States remain reluctant to recommend use of the IUD, and fewer than 1% of women in the United States report using an IUD.⁵ This statistic contrasts sharply with the nearly 12% mean rate of IUD use worldwide—a rate which has been measured as high as 33% in China and 18% in Scandinavia.⁶ In the United States, at least 37% of couples rely on permanent sterilization for contraception,⁷ although permanent sterilization is not as cost-effective as the IUD^{1,2} and is associated with higher morbidity rates⁸ and lower patient satisfaction rates.⁹

Are we encouraging use of the most effective and cost-effective methods for patients who want a reversible contraceptive method? If cost is removed as a barrier to con-

traception, are members who do not want to become pregnant moved toward more cost-effective contraceptive methods? By providing evidence-based medical information about today's IUDs to professionals and patients, can we increase use of this most cost-effective method of contraception?

In 2002, the Kaiser Foundation Health Plan in California made a benefits change to cover the cost of the most cost-effective contraceptive methods, including IUDs, injectables, implantables (when available), and emergency contraception. This change was the result of years of advocacy work by committed physician-leaders in obstetrics/gynecology and adolescent health departments across both the Northern and the Southern California Kaiser Permanente (KP) Regions.

Understanding the potential of IUDs for reducing the number of unintended pregnancies and understanding perceived nationwide attitudes about IUDs, a team of investigators designed a study hypothesizing that a clinician-focused intervention offering evidence-based medical information to physicians, nurse practitioners, staff, and patients would result in greater utilization of IUDs than would removing the cost of the IUD as a barrier to its use. A secondary goal of the study was to decrease the rate of tubal sterilizations, the most common form of contraception in the

United States. Funding was sought and obtained through the assistance of the Women's Health Research Institute (WHRI), and the study was approved by the Kaiser Permanente Northern California Institutional Review Board.

Study Design

In the quasi-experimental study design, a nonequivalent control group was used with pretest and posttest questionnaire instruments created to evaluate the intervention. This study design was used because randomly assigning persons to strict experimental and control groups was not practical. Before the study began, IUD insertions and tubal sterilizations from outpatient encounter records and surgery records for all KPNC Medical Service Areas spanning three calendar quarters were collected to determine baseline utilization rates. The denominator for those rates was based on the women at risk of pregnancy aged 15–44, within each service area, for each calendar quarter. Within each service area, IUD utilization rates varied widely, and there was clinician interaction between medical centers through department meetings. Travel distance to some service areas was impractical given the resources available to conduct the intervention. The six KP Northern California Medical Service Areas were then assigned to be either an intervention or comparison “usual

... despite the proven safety and cost-effectiveness of today's IUDs, women who have unintended pregnancies are relying on less effective methods of contraception ...



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care” site on the basis of matching utilization data and of resources to conduct the intervention. Before the intervention was conducted, a voluntary survey was administered to all (ie, more than 500) obstetrics/gynecology physicians and nurse practitioners across the KP Northern California Region to evaluate their knowledge, attitudes, and practice patterns regarding IUDs.

Intervention: Provider Education

The intervention was delivered in a grand rounds format and consisted of evidence-based continuing medical education (CME) about today's CU-T 380 IUD and the LGN-20 levonorgestrel-containing intrauterine system. The primary goal of the CME was to address common, published concerns about intrauterine contraceptive devices.

The CME offering was developed by all three investigators in conjunction with two additional physician-champions, all obstetrics/gynecology clinicians, and consisted of a 49-slide Powerpoint presentation. For both the CU-T 380 device and the LGN-20 system, the CME program addressed evidence-based issues regarding IUD safety, efficacy, risks, contraindications, mechanism of action, cost-effectiveness, and noncontraceptive benefits. The CME program also discussed appropriate patient selection, ways to reduce barriers to access, and several relevant case studies.

These grand rounds were conducted at ten different KP facilities by two KP clinician-presenters. Some of the presentations were given in videoconference format to satellite KP facilities so that all 17 intervention facilities were exposed to the educational intervention. Sign-in sheets reflected attendance of 352 clinicians from a variety of

primary care departments; this number probably underestimated true attendance because not all participants signed in and because some facilities either required no attendance recording or no program evaluation. Clinicians who did not need CME credit were encouraged to attend the presentation solely to receive the information. Of the program evaluations received, more than 95% rated the CME offering as “very good” or “excellent,” and more than 80% reported that they gained new knowledge and that the subject was relevant to their practice.

Reinforcement Activity: Patient Education

The study developed or revised four separate patient education products to include the same evidence-based information about IUDs that was included in the clinician education materials. The new products or revisions were made in cooperation with the KP Northern California Regional Health Education Department. One product developed was the *Intrauterine Contraception Health Matters* tipsheet, available in English, Spanish, and Chinese versions. The IUD tipsheets were proactively provided to all intervention facilities at no cost, but obstetrics/gynecology departments at the comparison sites were notified that the tipsheets were available at a cost of \$3.19 per pack of 50 sheets.

Revisions were made also to three other available products: 1) *Healthy Beginnings* newsletters (prenatal education program); 2) the KP *Healthphone* tape titled “The IUD & IUS Method of Birth Control”—there is a separate IUD tape No. 401 [English] in both English and Span-

... regarding IUDs, the study team found inaccurate and outdated information.

ish within the section of tapes called birth control methods;¹⁰ and 3) the KP *Healthwise Handbook*, also available in both English and Spanish versions.¹¹

The revised *Healthy Beginnings* newsletters were placed in all obstetrics/gynecology departments regardless of whether the department was included in the intervention or comparison sites. The revised *Healthphone* tapes and *Healthwise Handbook* are available to all KP members.

Education Activity: Raising Member Awareness

For each of the three KP Medical Service Areas exposed to the intervention, the KPNC Member Communications Department produced a *Member News* story about IUDs. In each of these publications, one of the physician-trainers provided a quote about IUDs that customized the awareness-raising story to that particular service area. The purpose of the awareness-raising stories was to clarify myths about IUD safety, to alert women that the IUD was available at no cost, and to invite appropriate candidates—especially women considering permanent sterilization—to discuss IUDs as a contraceptive option. These *Member News* articles were sent to approximately 1.5 million KP members in Northern California.

Survey and Education Activity for Appointment and Advice Call Centers

Appointments and medical advice for the obstetrics/gynecology, internal medicine, and pediatric departments are available to KPNC

Experience from other studies has shown the importance of acknowledging the contribution made by support staff to a patient's medical care experience and health education.

members through three KP Appointment and Advice Call Centers (AACCs). In reviewing the AACC protocols regarding IUDs, the study team found inaccurate and outdated information. The AACC advisory group was then given recommendations for revisions to the scripted advice delivered by registered nurses at the AACCs regarding IUD safety, efficacy, timing of insertion, and appropriate candidate selection.

Reinforcement Activities for Clinicians and Staff

The study design included reinforcement activities conducted at the intervention sites for the obstetrics/gynecology clinicians and for their support staff. These activities included an obstetrics/gynecology department meeting (an educational follow-up session) conducted by a member of the study team and one of the physician-champions. Before these meetings, the study team (including the physician-trainers) attended a peer-to-peer training session designed to help the team assess readiness for change, confront adversity, and facilitate change in their practice. The follow-up session allowed clinicians to discuss case studies with the physician-champions and to address perceived barriers to IUD use (eg, nulliparity and timing IUD insertion to occur only during menstruation). IUD insertion training sessions were held at four facilities and were attended by 30 clinicians. Techniques for inserting the CU-T380 and LNG-20 devices were described and practice models provided.

The *IUD Health Matters* tipsheets

and clinician/staff incentives were distributed proactively at the third facility visit made by the study team. The incentives consisted of a coffee mug and Post-It notes imprinted with the KP Regional Women's Health logo, Web site address, and the following message: "Give Her the Choice to Change Her Mind: Intrauterine Contraception." All clinicians and support staff received the incentives (788 coffee mugs and 1500 notepads) and a handout containing a thank-you message for participating in the study. Experience from other studies has shown the importance of acknowledging the contribution made by support staff to a patient's medical care experience and health education. In December 2002, a final follow-up interoffice mailing of additional *IUD Health Matters* tipsheets to all intervention sites completed the intervention.

A postintervention survey was voluntarily administered to all obstetrics/gynecology clinicians one year after they received the clinician educational intervention. Data regarding IUD and tubal sterilization utilization were collected throughout the nine-month intervention period and for a year after the intervention to assess sustainability. Analysis of responses to both the preintervention and postintervention surveys and analysis of the data regarding IUD and tubal sterilization utilization are in process. Publication of the full study results is planned for 2005.

Future Activities

The study team plans to share the CME-approved IUD grand rounds presentation with the comparison sites and is willing to share the presentation with other KP Regions as well as with our community partners. Various formats for

dissemination are under consideration and would include the evidence-based PowerPoint slides, CME objectives, and references cited. With the cooperation of Northern California Regional Health Education, member education materials are available in English, Spanish, and Chinese to other regions. ❖

For more information about the study or to request the CME-approved IUD Powerpoint slide presentation and samples of the member education materials, please contact Debbie Postlethwaite at debbie.a.postlethwaite@kp.org.

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Zoe Sutton, RN, MSN, PNP, was Project Manager when the Intrauterine Contraception Study was initiated. Mibhali Maheta, MD, and Vicki Darrow, MD, were physician-champions for the project. Jean Flores, MPH, from Quality and Operational Support and Mary Anne Armstrong, MA, from the Division of Research were statistical analysts for evaluation of the project.

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A Great Teacher

... can explain with passion that the subject matter
is worth the effort required to master it ...
shares practical rather than esoteric information ...
is free of bias, or discloses potential conflicts of interest ...
is evidence-based when evidence exists.

— Paul Wallace, MD, Care Management Institute, The Permanente Federation
Presentation at the Faculty Development Workshop, Santa Cruz, January 2001

Management of Menopause and Midlife Health Issues: What Do Midlife Women Want from Primary Care Clinicians?

By Tracy Flanagan, MD
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Of 665 women in a recent survey, more than half left their medical appointments with unanswered questions about menopause and hormone therapy (HT).

Introduction

As the Baby Boomers move into their 50s and 60s, a larger proportion of Kaiser Permanente (KP) members will be menopausal women. Menopause and midlife have many potential short-term and long-term health consequences, including heart disease, osteoporosis, and physical and emotional symptoms of low estrogen levels. Even if menopause and midlife do not have dramatic health consequences for individual women, many women at this stage of life are looking for strategies to stay healthy or to become healthier. How well KP meets these health care needs has implications for how KP is viewed by its members and by the community at large.

KP's new "Thrive!" marketing strategy focuses on wellness and total health and dovetails with the needs of many midlife women.¹ Wellness is a focus that includes a broad range of issues of concern to patients but not necessarily physicians: physicians are expert in acute care but not necessarily expert in preventive care. In short, our future success depends on KP's ability to address wellness issues—such as menopause and midlife health—with our current and prospective patients.

For example, women want to learn about menopause and their health care options^{2,3} but are not receiving the information and consultation they need.⁴ Of 665 women in a recent survey, more than half left their medical appointments with unanswered questions about menopause and hormone therapy (HT). Women understood the symptoms of menopause but not its long-term health risks.⁵

KP members also want more information than they have been receiving from clinicians.⁶ Women reported fears about aging and illness; wondered whether to seek care for vague symptoms; and were displeased that clinicians tended to trivialize symptoms. The researchers

concluded that the women lacked understanding of normal menopause and did not know what to expect. Most women were interested in relieving symptoms and in preventing future illness and wanted individualized treatment based on their personalized risk assessment.

Recent KP efforts to inform women about menopause have included use of individualized appointments with a Menopause Nurse Practitioner; development and distribution of the *Menopause Guidebook*;⁷ availability of menopause classes and group appointments; and mass mailings of a one-page information pamphlet. These programs were somewhat successful but either showed limited scope or engendered only partial recall in female readers because the written information was not reinforced or personalized by a clinician's endorsement. This KP experience shows that to be successful an intervention must be focused, personalized, and reach a high percentage of perimenopausal and menopausal women. Such an intervention can take place only during an office visit—the only strategy that can 1) improve women's understanding of menopause, 2) provide personalized information and care, and 3) reach a high percentage of women in the targeted age group.

Although menopause is widely considered to be best addressed in the Gynecology Department, this approach misses many women in the targeted age group. In the KP Northern California (KPNC) Region, a two-year study of utilization patterns⁸ of female Kaiser Foundation Health Plan members aged 45 to 57 years showed that of 6000 women, about 6% were seen only in the Gynecology Department, 60% were seen in both the Gynecology and Internal Medicine Departments, and 25% were seen only in the Internal Medicine Department. In a one-year period, 34% of the same women visited the Internal Medicine but not the Gynecology Department,

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and nearly 37% were seen in both departments. Focusing an intervention in Gynecology Departments would probably exclude women who visit their gynecologists less often over time. KP focus groups have indicated that women who are more accustomed to speaking with gynecology clinicians about menopause would nonetheless be willing to speak with a knowledgeable medicine clinician.⁶

This study—the Management of Menopause Intervention (MOMI) study—asked whether a systematic, office-based intervention in a primary care setting—in particular, the Internal Medicine and Gynecology Departments—could achieve three goals:

- Improve midlife women's understanding and confidence about menopause and midlife health issues;
- Improve midlife women's satisfaction with their health care; and
- Improve clinicians' awareness and apparent competence to counsel midlife female patients about their health.

Methods

The MOMI Study was a three-pronged intervention that consisted of the following components:

- Clinician education in menopause and midlife health;
- A multipart intervention—called FLASH—consisting of a self-test questionnaire; patient handouts on menopause and midlife health issues; and brief clinician-patient counseling; and
- Systematic prompts for clinicians to use the intervention.

These components were implemented between June 2003 and July 2004. The study protocol was approved by the KPNC Institutional Review Board. The analysis reported in this article is based on survey results that addressed the first two goals of the study—whether FLASH could improve midlife women's understanding and confidence about menopause and midlife health issues and improve midlife women's satisfaction with their health care. To analyze these goals, we compared survey results of women who did and who did not receive the FLASH intervention during their most recent visit. We also examined whether the effect of FLASH differed among women who received the intervention in the Internal Medicine Department or in the Gynecology Department.

Study Participants

Women aged 45 to 55 years who were assigned to the KP Richmond Medical Center—about 5300 women—were eligible for the study. All women who came in for

The form is titled "Hot Flash Women's Midlife Health Check" and includes the following sections:

- Menopausal Symptoms:** Questions about hot flashes, night sweats, mood changes, and sleep disturbances.
- Heart Health:** Questions about smoking, physical inactivity, weight, cholesterol, and family history of heart disease.
- Bone Health:** Questions about calcium intake, weight-bearing exercise, and family history of osteoporosis.
- Breast Health:** Questions about mammograms, breast lumps, and family history of breast cancer.

Each section has a "Yes/No" column and a box for "MD/PC Advice/Referral".

Figure 1. "Health Flash" questionnaire.

any type of daytime visit (except for preoperative appointments) to the Internal Medicine or Gynecology Department between September 2, 2003, and December 1, 2003, were eligible for the patient survey upon which this analysis is based.

Clinician Education

Physician training about menopause is standard in most gynecology residencies but not in internal medicine residencies. Moreover, current opinion among clinicians concerning menopause and HT is changing rapidly,⁹ and even experienced clinicians may have outdated or inadequate knowledge. Further, even if sufficiently trained about menopause, many clinicians may not have practiced brief, personalized counseling techniques. To help with these deficits, quarterly facilitywide grand rounds directly addressed aspects of this broad topic such as osteoporosis, alternative treatment for menopausal symptoms, and the relation between HT and heart disease.

Small training sessions were organized within each department to train clinicians in the use of the questionnaire, associated information packet, and techniques of brief midlife health counseling. Use of the materials and implementation success were continuously assessed by clinician feedback collected quarterly.

... even experienced clinicians may have outdated or inadequate knowledge.

Components of the FLASH Intervention

A “Health Flash” questionnaire (Figure 1) was designed, printed on triplicate paper, and used with a packet containing women’s midlife health information covering menopause, osteoporosis, calcium, and group menopause class information (materials already in use in KPNC). A “Women and Heart Disease” tipsheet was specifically designed for the study and was included in the packet.

Clinicians in the Internal Medicine and Gynecology Departments were taught to deliver a brief (1- to 5-minute) counseling message to women as part of their health care visit, to be used with the FLASH questionnaire and information packet. This counseling was expected to be done at least once per year for each eligible woman visiting either the Gynecology or Internal Medicine Department.

Systematic Prompt for Clinicians

To automatically prompt clinicians in Internal Medicine and Gynecology Departments to discuss midlife health and menopause with midlife female patients, a medical assistant or receptionist attached the FLASH questionnaire and packet to the charts of women aged 45 to 55 years who presented for primary care services. The clinician reviewed questionnaire responses and discussed recommended interventions (eg, testing, medications, or dietary adjustment) with the patient. To reinforce the counseling received, the patient was given a copy of the form and a record of additional recommended resources or tests. Another copy was placed in the patient’s chart, and a third copy was kept for project documentation.

Survey Method

Improvement in women’s understanding and confidence about menopause and their satisfaction with their health care were measured by using a telephone survey (“patient survey”). Patients were stratified into four groups according to whether they visited an internal medicine or gynecology clinician and whether they received the FLASH intervention. A random sample of women was selected from each group (but all patients who received FLASH in the Gynecology Department were included because the group was small). The survey took approximately 10-15 minutes to complete and asked about clinicians’ quality and thoroughness of care as well as patients’ satisfaction with the counseling and information received regarding menopause, osteoporosis, and heart disease. Within a month after their health care visit, women were called for the patient survey by an independent telephone survey vendor.

Statistical Analysis

Bivariate and multivariate analyses tested for statisti-

cally significant and substantively meaningful differences in FLASH and non-FLASH respondents. Multivariate statistical models were used to control for demographic differences when testing for statistically significant differences in performance.

Results

Who Received FLASH

FLASH was received by 10% of eligible patients seen in the Internal Medicine Department and 15% of eligible patients seen in the Gynecology Department.

For the four groups of women surveyed, survey responses were completed by 59 (82%) of GYN patients who received FLASH, 105 (77%) of GYN patients who did not receive FLASH, 146 (90%) of MED patients who received FLASH, and 103 (60%) of MED patients who did not receive FLASH.

The survey showed that patients who self-reported going through menopause or beginning to experience menopause symptoms were not more likely to have received the FLASH intervention. Among patients seen in the Internal Medicine Department, 26% of those who received the intervention and 10% of those who did not receive the intervention indicated that they had already gone through menopause. This difference between groups was significant ($p < .05$). Similarly, patients who were seen in the Internal Medicine Department and received the intervention were older (mean age 50.2 years) than patients who were seen in that department and did not receive the intervention (mean age 48.3 years) ($p < .05$). Patients seen in the Gynecology Department showed no such pattern.

White patients were statistically significantly more likely to receive the intervention than were African-American patients. White women constituted 38% of women who received FLASH but only 27% of women who did not receive FLASH ($p < .05$). In contrast, African-American women constituted only 26% of women who received FLASH but constituted 38% of women who did not receive FLASH ($p < .05$). This difference persisted even after controlling for women’s age, education, and stage of menopause as well as department visited and patient’s familiarity with the clinician seen. The same proportions of Asian and Latina women did and did not receive FLASH.

Among patients seen in the Internal Medicine Department, women receiving the intervention were more likely to have visited a clinician who they regularly see than were women who did not receive the intervention (91% versus 79%, $p < .05$). Clinicians’ use of the intervention was not statistically correlated with individual clinician scores recorded for the KP Member Satisfaction Survey (MPS),¹⁰ the ongoing patient satisfaction survey con-

ducted in KPNC. That is, clinicians with higher MPS scores were not more likely to use FLASH with their patients than were clinicians with lower MPS scores.

Effect of MOMI on Patients

In both the Internal Medicine and Gynecology Departments, bivariate analysis showed that MOMI increased the likelihood of clinicians discussing menopause, heart disease, and osteoporosis with patients and of giving them written information (Table 1).

Bivariate analysis also showed that among patients seen in the Internal Medicine Department, those who received FLASH reported a higher level of satisfaction with the amount of time the clinician spent with them compared with non-FLASH patients (83% versus 68% reporting a satisfaction score of 8, 9, or 10) and a higher level of satisfaction with the medical care they received during the visit (84% versus 73% reporting a satisfaction score of 8, 9, or 10). FLASH did not have a statistically significant impact on these satisfaction measures for the patients seen in the Gynecology Department.

Because the strong associations in the bivariate analysis might be explained by other factors, we used multivariate analysis to control for several possible covariates, including familiarity with the clinician seen; patient's stage of menopause and education; race, ethnicity; and clinicians' patient satisfaction scores. Even after controlling for these factors, women who received FLASH during a visit to the Internal Medicine Department were still more likely than women who did not receive FLASH to have discussed menopause and osteoporosis with their clinician and were more likely to have received written materials about menopause. Moreover, women who received FLASH in the Internal Medicine Department remained more satisfied with the amount of time their clinician spent with them and with the medical care they received.

In the multivariate analysis of gynecology patients' responses, we found that women who received FLASH were still more likely than women who did not receive FLASH to have discussed osteoporosis with their clinicians and to have received written material about menopause. However, the likelihood of discussing menopause or heart disease no longer differed between these two groups.

Discussion

Only about 10% of eligible patients visiting the Internal Medicine Department and 15% of eligible patients visiting the Gynecology Department received the intervention during the time when the patient survey was fielded. Most clinicians used the FLASH interventions infrequently because clinicians did not receive the inter-

Table 1. Percentage of women who did and who did not receive the FLASH intervention in the Internal Medicine and Gynecology Departments

	Internal Medicine		Gynecology	
	FLASH	No FLASH	FLASH	No FLASH
Clinician discussed menopause	63 ^a	26	88 ^a	72
Clinician discussed heart disease	46 ^a	32	43 ^a	26
Clinician discussed osteoporosis	37 ^a	14	64 ^a	32
Patient received written information on menopause	75 ^a	30	80 ^a	53

^a Within the Internal Medicine and Gynecology Departments, FLASH patients answered significantly differently than patients who did not receive FLASH ($p < .05$).

vention packet and questionnaire consistently. In both departments, virtually all clinicians using the intervention wanted a better process for systematizing the distribution. Unlike a pediatric department, which typically maintains various age-related handouts that constitute a standard part of most pediatric visits, neither the Internal Medicine nor the Gynecology Department was accustomed to using such an automatic process. A better system probably would have led to more women receiving the FLASH intervention.

This study cannot fully explain why particular patients received or did not receive FLASH. Because the distribution system and clinician prompts were suboptimally effective and not systematic, findings regarding the relation between patients who received FLASH and menopausal status and race cannot be reliably explained.

We initially hypothesized that clinicians who used FLASH—that is, clinicians who routinely gave additional information on menopause—might also have higher baseline patient satisfaction scores (ie, MPS scores) than other clinicians. We were surprised to observe that MPS scores did not predict which patients received the intervention. The suboptimal implementation system for automatically distributing FLASH to eligible patients may have overshadowed a relationship between clinicians' MPS scores and use of FLASH. Therefore, we cannot completely rule out the possibility that clinicians who were more likely to talk with women about menopause, heart disease, and osteoporosis before MOMI may have been more likely to use the FLASH intervention.

We were surprised by the sizable impact on patient satisfaction with length of visit and on patient satisfaction with medical care received among FLASH patients seen in the Internal Medicine Department, even after controlling for clinicians' scores on MPS. This effect was not observed in patients seen in the Gynecology Department. This difference may be explained by the relatively few women in the Gynecology Department samples and because FLASH and non-FLASH Gynecology Department

... women who received FLASH were still more likely than women who did not receive FLASH to have discussed osteoporosis with their clinicians and to have received written material about menopause.

patients gave clinicians overall high scores on these measures, making any difference difficult to discern.

Study Limitations

As discussed above, during the patient survey, the FLASH intervention was received by only about 10% of eligible women who visited the Internal Medicine Department and by only 15% of eligible women who visited the Gynecology Department.

Although we actively solicited clinicians' cooperation by involving them in several aspects of the project—developing the final format of the FLASH questionnaire and packet content; regularly presenting project progress and preliminary responses from patients; and obtaining endorsement by investigators in internal medicine and gynecology—some clinicians believed that adding FLASH to the clinic visit was inconvenient or that it was not valuable. Moreover, neither the support staff nor the clinicians had a systematic prompt to ensure distribution of the questionnaire. Distribution of the questionnaire relied on daily lists of eligible patients supplied by the project manager or individual staff members who remembered to distribute the questionnaire. In day-to-day clinic activities, FLASH was often forgotten.

Conclusion

In both the Internal Medicine Department and the Gynecology Department, MOMI increased the likelihood of clinicians discussing menopause, heart disease, and osteoporosis with patients and of giving them written information. These findings suggest that a combination of prompted, automatic patient counseling, handout intervention, and clinician training increases the likelihood that a clinician will discuss midlife health issues with patients during a primary care office visit. In the hectic and time-limited primary care office visit, MOMI can help clinicians interactively deliver a brief, targeted preventive message about menopause to patients. The finding of improved satisfaction with their medical care among patients receiving FLASH in the Internal Medicine Department emphasizes that patients want such preventive information.

The impact of MOMI on midlife women's self-reported understanding and confidence about menopause and midlife health issues will be better measured when complete results of the preintervention and postintervention member survey become available. Meanwhile, the MOMI investigators/researchers hope that this study will provoke further discussion on how to deliver health care that embodies the larger health goal of KP's "Thrive" mission—health care based not only on acute and chronic care but also on wellness and preventive care. ❖

Acknowledgments

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Lorinda Hartwell, DrPH, MPH, Rachele Mirkin, MPH, Ruth Shaber, MD, and Robert Goldfien, MD assisted with development of the project.

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The Perinatal Patient Safety Project: New Can Be Great!

By Julie Nunes, RN, MS, CPHRM
Sharon McFerran, RN, PhD, CPHQ

Introduction

Although in 2000, the frequency of birth injury claims filed in the Kaiser Permanente Northern California Region (KPNC) had remained stable for years, their cost had risen dramatically. In response to this trend, the KP Board of Directors assigned Bruce Merl, MD, Director of The Permanente Medical Group (TPMG) Medical-Legal Affairs, and Julie Nunes, KPNC Regional Risk Management Director, the task of reducing the cost of these claims. Also assembled to address this problem was an expert group consisting of Susan Smarr, MD (obstetrician and Assistant Physician-in-Chief

for Risk at the KP Santa Clara Medical Center), Robin Field, MD (perinatologist at the KP San Francisco Medical Center), Sonia SooHoo, MD (obstetrician and Chief of Medical-Legal Affairs at the KP South San Francisco Medical Center), and Mary Parks (KPNC Senior Counsel for Professional Liability). They performed an in-depth analysis of both the literature and the KPNC experience regarding perinatal events. Risk strategies developed from these efforts were highlighted at a *Medicine Today* broadcast in 2001. A theme that emerged from this analysis was the integral role of communication and teamwork in successfully managing obstetric emergencies.

from these industries included drills for emergencies; understanding human error; a flattened hierarchy during emergencies; human factors techniques that focus on interpersonal communication and shared responsibility; focusing on the problem and not the person; and theories such as normalization of deviance (acceptance of lower standards of performance over time because "you got away with it"). With these new tools, Ms Nunes obtained a Garfield Grant to implement these approaches in the KPNC perinatal units. The resulting project was the Perinatal Patient Safety Project (PPSP), whose Principal Investigator is Julie Nunes, RN, MS, CPHRM, and whose co-investigators are Bruce Merl, MD, TPMG Director of Medical-Legal Affairs, and Gabriel J Escobar, MD, Director of the KPNC Perinatal Research Unit. Project management was provided by Sharon McFerran, RN, PhD, CPHQ, PPSP Senior Project Manager, whose participation was funded by the Garfield Grant.

Initiated in 2002, the project required that each facility initiate

two or three changes using Human Factors techniques during the year the facility participated in the project. PPSP was piloted at four KP sites in 2003: the Hayward, San Francisco, Santa Teresa, and Walnut Creek Medical Centers. In 2004, the program was taken to four additional medical centers—Redwood City, Sacramento, South Sacramento, and Vallejo—and in 2005 is being extended to KP sites in Fresno, Oakland, Santa Clara, and Santa Rosa.

A theme that emerged from this analysis was the integral role of communication and teamwork in successfully managing obstetric emergencies.

Sidebar 1. PPSP Innovations are Big Steps Forward

PPSP is being adopted Programwide. Teams are being identified in all KP Regions. A Critical Events Team Training (CETT) Train-the-Trainer program was offered in 2004 in the KP Southern California Region. Several KP Regions are purchasing mannequins in preparation for the training. A Fetal Heart Rate training video has been developed for Programwide dissemination to standardize language and interpretation of fetal heart rate tracings.

Learning From Other Industries: The Perinatal Patient Safety Project

With this insight and in coordination with Douglas Bonacum, Vice President of Safety Management, and Suzanne Graham, Patient Safety Practice Leader for the California Regions, Ms Nunes gathered information from the airline industry, from NASA, and from other highly reliable organizations about methods these industries used to perform complex tasks over a long period with minimal errors. Key learnings

Project Outcomes

Borrowing improvement techniques from industries outside the health care industry is a new approach that has been highly successful at the four PPSP pilot sites in Northern California. The project has been so successful that it was awarded the Lawrence Patient Safety Award for 2004. In addition to meeting the goal of two or three improvements, each site implemented human factors training, Critical Events Team Training, the definition of fetal well-being, multidisciplinary rounds in the la-

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Special Feature

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bor and delivery unit, and use of SBAR (Situation, Background, Assessment, Recommendation) as a communication format. The project completed its first replication, and the success rate equaled the pilot sites.

Why PPSP Has Been Successful

The project's success can be attributed to several factors. First, PPSP adopted a "just culture," which eliminated blame, focused on problems as they arose, and permitted anyone to speak freely without fear of retribution when they have pertinent information to share. This culture has been a cornerstone of the project's success.

Another factor leading to success was that PPSP modeled its values. Throughout its course, the project consistently used human values expressed by several descriptive phrases: "trust and respect of all disciplines plus leadership commitment"; "clear operations plus teamwork and communication"; "conflict resolution plus empowerment"; "innovation"; and "holding the gains."

Wide-ranging institutional support at high levels was imperative because many disciplines are necessarily involved in providing perinatal care that incorporates these values. PPSP received broad sponsorship from committees such as the Perinatal Peer Group,

the Chiefs of Obstetrics, the Chiefs of Anesthesia, the Risk Management Patient Safety Committee, and the Perinatal Council. Because the topics discussed at monthly PPSP team meetings are sensitive, the project was structured under the Quality umbrella for protection at both the local and regional levels. Oversight of the multidisciplinary PPSP team at the medical center is provided by a PPSP Steering Committee that reports to the Quality Committee. At the regional level, a Steering Committee that provides oversight to the entire project. Reports from the medical centers at monthly regional meetings are a means of rapidly sharing best practices and addressing issues at the regional or programwide level.

Leadership commitment also contributed to PPSP's success. To assure that the project would receive the support it needed, medical center leadership and the PPSP principal investigator signed a contract which outlined the responsibilities of both the site and the regional project.

The importance of physician-leaders in any change effort cannot be underestimated, and PPSP is no exception. Physician champions set the tone for change acceptance by other clinicians. The more involved the Chief and the more visible the Chief's leadership, the more readily change was accepted. A corollary to this principle was that the more visible and involved other physician-champions were, the better the change was accepted.

Four-hour Human Factors training was provided by Paul Preston, MD, an anesthesiologist from KP San Francisco Medical Center. The program focused on brief-

Sidebar 2. The New Culture of PPSP

- Just Culture
- Human Factors techniques:
 - Briefings
 - Assertion
 - Situational Awareness + Recognizing "Red Flags"
- Critical Events Team Training
- Multidisciplinary team to solve problems
- Clear communication:
 - SBAR
 - Escalation
- High-Reliability Perinatal Unit:
 - Definition of Fetal Well-Being
- Communication:
 - Multidisciplinary Rounds

ings, assertiveness, situational awareness (including recognition of "red flags"), human error, and fatigue. Use of this training at the outset—it was required before the first team meeting—has proved crucial for effectiveness of the large multidisciplinary teams, which are formed at each facility. (Team membership was large because the continuum of perinatal care involves so many disciplines.) Each team member was invariably a part of the decision-making process so that the solutions identified could be appropriately implemented.

By exercising local "ownership" of problems—including their identification and solution—the multidisciplinary PPSP team identified two or three changes to be made during the year-long project and how these changes would improve perinatal care. To find and support these solutions, the concept of high-reliability perinatal units was utilized. This con-

Table 1. Kaiser Permanente Northern California Perinatal Patient Safety Project Lawrence Patient Safety Award winners
Principal Investigator, PPSP: Julie Nunes, RN, MS, CPHRM, KP Northern California Director of Risk Management
Co-Investigator, PPSP: Bruce Merl, MD, TPMG Director of Medical/Legal Affairs and Ophthalmology, KP Martinez
Co-Investigator, PPSP: Gabriel J Escobar, MD, Research Scientist, Division of Research
Senior Project Manager, PPSP: Sharon McFerran, RN, PhD, KP Northern California Risk Management
Educator, PPSP: Paul Preston, MD, Assistant Chief of Quality/Anesthesiology, KP San Francisco
Patient Care Services Liaison, PPSP: Lynda Garrett, RN, MPH, Senior Consultant, Northern California Region
Patient Safety Liaison, PPSP: Suzanne Graham, RN, PhD, Patient Safety Practice Leader, KP California Regions
KP Leaders at PPSP Pilot Sites
Hayward: Nancy Corbett, RN, BSN, Perinatal Services Manager, Maternal Child Health
Hayward: Dennis McBride, MD, Obstetrician
Hayward: Stephen Young, MD, FACOG, Chief of Obstetrics & Gynecology, KP Greater Southern Alameda Area; Chair, Obstetrics & Gynecology Chiefs
San Francisco: Linda Kay Deaton, RN, BSN, Assistant Nurse Manager, Perinatal Services
San Francisco: Robin Field, MD, Director, Perinatal Services,
San Francisco: Nancy Taquino, RN, MSN, Maternal Child Director,
Santa Teresa: Elaine Barrett, RN, BSN, Maternal Child Health Manager
Santa Teresa: Joseph Derrough, MD, Obstetrician, Medical Co-Director Patient Safety
Walnut Creek: Jeffrey Maier, MD, Perinatologist
Walnut Creek: Lynne Morrison, RN, BSN, Labor & Delivery Manager
Walnut Creek: Duayna Pucci, RN, MSN, MHA, Director for Maternal Child Health



Figure 1. Critical Events Team Training provides realistic simulations of emergency events in Labor and Delivery. Pictured is an example of a simulation at KP Santa Teresa Medical Center.

cept was based on research done by Eric Knox, MD, and Kathleen Rice Simpson, RN, who published the findings of their review of medical-legal cases from 250 hospitals during a ten-year period.¹⁻³ Their recommendations were identified and translated into a self-assessment tool to aid PPSP teams in identification of topics for improvement.

To arrive at a functional definition of fetal antepartum and intrapartum well-being, the KPNC Perinatology Peer Group adopted an algorithm that provided specified criteria. The algorithm required that, if these criteria were not met, the clinician had to evaluate fetal status and document either a new plan of care or the reason why the current plan should remain unchanged. This algorithm was supplemented by definitions for-

The importance of physician-leaders in any change effort cannot be underestimated ...

mulated by the National Institute of Child Health and Development (NICHD) to standardize terminology between physicians and nurses.

Using maternal and neonatal mannequins, Paul Preston, MD, and Dr McFerran developed Critical Events Team Training in which labor and delivery events were realistically simulated. Participants included everyone who would normally be involved in these events (Figure 1). Each simulation was videotaped, and the videotape was used for the debriefing discussion with event participants. The main focus of the debrief was placed on system and communication issues and not on the individual. To ensure that no part of the videotape would be used inappropriately, it was erased immediately upon completion. Problems

that needed to be addressed were documented and referred to the PPSP team.

A critical component to the success of PPSP was a dedicated project manager. Her responsibilities included facilitating PPSP team and steering committee meetings, keeping the teams focused, and providing them with tools and training. A primary benefit from this position was that information was shared rapidly between KP facilities.

Implications for the Future

In addition to two or three improvement projects at each site, the scores from the perinatal version of the Safety Attitudes Questionnaire survey was used as a short-term measure of success.⁴ The survey was administered to all KPNC perinatal units in 2002 to obtain baseline data and was conducted again in 2003. The 2003 survey scores (of four out of five dimensions of the SAQ) at all KPNC perinatal sites, showed statistically significant improvement. Furthermore, the improvement at the four pilot sites was even more dramatic than the non-pilots.

Long-term measures have been identified and are being tracked. However, because adverse events in obstetrics are extremely rare, approximately three to five years of ongoing monitoring will be required to collect sufficient data to verify whether trends in such measures have been affected by the project. These data will be of three types: 1) "failure to rescue" rates (developed by Gabriel J Escobar, MD, Divi-

sion of Research) of specific maternal and neonatal clinical outcomes that may in some respects reflect "near miss" situations in obstetric practice; 2) a declining trend in the number of medical-legal claims; and 3) improved customer satisfaction with the labor and delivery experience, as measured by scores on the Picker Patient Experience Questionnaire.⁵ ♦

Acknowledgments

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"Bolin Ridge"

oil on canvas

24 x 30

By Julie Nunes, RN, MS, CPHRM

Ms Nunes is the Northern California Regional Director of Risk Management for KP and the Chief Investigator for the Perinatal Patient Safety Project.

More of Ms Nunes' art can be found on page 55.

Four Decades of Research on Hormonal Contraception

By Diana B Petitti, MD, MPH
Stephen Sidney, MD, MPH

Introduction

The first hormonal contraceptive was approved for marketing in the United States in 1960. This contraceptive, known then and now as “the pill,” was taken orally and consisted of an estrogen and a progestin designed to be taken by women.

The combined estrogen/progestin oral contraceptive was a breakthrough in contraception for three reasons: because it was highly effective for preventing conception; because, unlike the condom and the diaphragm, the effectiveness of the oral contraceptive does not depend on its being used in conjunction with the act of intercourse; and because, unlike tubal ligation and vasectomy, the effect of the oral contraceptive is reversible. Female hormonal contraceptives administered by injection, transdermally, vaginally, and released from a subdermal implant are now available in the United States and elsewhere. All these contraceptive agents are based on the same general physiologic-biochemical principles as “the pill.” Hormonal contraceptives have been used by at least 500 million women alive today.

Kaiser Permanente (KP) became involved in oral contraceptives in the mid-1960s and has been actively involved in research on hormonal contraceptives since the late 1960s. This review describes the historical background of KP initial research

on oral contraceptive safety and the contributions of KP research on hormonal contraception in the subsequent four decades.

Walnut Creek Contraceptive Drug Study

Even before oral contraceptives were marketed, concern about the noncontraceptive health effects of these drugs was acute. Similar concerns about safety have accompanied introduction of other forms of hormonal contraception.

All hormonal contraceptives designed for use by women involve exogenous administration of synthetic estrogen, progestin, or both at doses that have been termed “unphysiologic.” Administration of exogenous estrogen and progestin can alter secretion of hypothalamic, ovarian, and other hormones and thus can theoretically affect multiple organ systems and physiologic processes. As early as the 1930s, exogenous administration of estrogen was known to cause breast malignancy in some rodent species.

Soon after these drugs were first marketed, the US Food and Drug Administration (FDA) began to receive spontaneous reports of venous thromboembolic events and stroke in users of oral contraceptives. Published reports of thromboembolic events^{1,2} heightened concern about the safety of oral contraceptives.

By the mid-1960s, the need for epidemiologic studies of the noncontraceptive effects of oral contraceptives on women's health had become apparent. The enormous popularity of “the pill” brought recognition that tens of millions of women in the United States and hundreds of millions worldwide would be exposed to exogenous hormones over many years. Thus, any effect of oral contraceptives on cancer or other health conditions had enormous public health implications.

In 1966, in response to concern about the safety of “the pill,” Dr James Shannon (then Director of the National Institutes of Health, NIH) transferred \$3 million to the National Institute of Child Health and Human Development (NICHD) to study this problem, and a decision was made to commission a large cohort study to evaluate the noncontraceptive health effects of oral contraceptives. Dr Philip Corfman (later to become NICHD's Director of the Center for Population Research) and Dr Daniel Siegel (an NIHCD statistician) investigated several possible sites for such an ambitious study—including the Mayo Clinic, the Health Insurance Plan of New York, and the US Department of Defense—but none appeared to have as much interest or ability as the KP Northern California Region to conduct such a study.

KP was considered a potential research site because personnel at

Hormonal contraceptives have been used by at least 500 million women alive today.

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the FDA had worked with Morris Collen, MD—a founder of The Permanente Medical Group (TPMG)—on a project to collect electronic data on prescriptions and on outpatient and inpatient diagnoses to facilitate identification of adverse drug effects. Personnel at NICHD were familiar with the capabilities of KP because they had worked with Jacob Yerushalmy, PhD, (a University of California at Berkeley statistician affiliated with KP) on the Collaborative Perinatal Project. This was an epidemiologic study that included data collection from more than 50,000 pregnant

women and long-term follow-up of outcomes in these women as well as their offspring. The KP Oakland Medical Center was a research site in the project.

In 1967, NICHD officials approached Dr Collen about KP's interest in conducting the epidemiologic cohort study. KP decision makers decided to conduct the study at the KP Walnut Creek Medical Center. The study began in 1968 with Fred Pellegrin, MD, and Irwin Fisch, MD, as the Co-Principal Investigators. Later, Drs Pellegrin and Fisch recruited Savitri Ramcharan, MD—who had trained in epidemiology at the Uni-

versity of California Berkeley School of Public Health under Dr Yerushalmy—to head the study, which was named the Walnut Creek Contraceptive Drug Study (WCCDS).

The first participants in the WCCDS were recruited in late 1968. From 1968 through early 1972, a total of 16,638 women aged 18 to 54 years were recruited into the follow-up study of oral contraception. An additional 1800 women who were pregnant or recently postpartum were recruited to a special cross-sectional study. Active follow-up of women in the WCCDS continued through 1978. From its start

Table 1. Kaiser Permanente studies of hormonal contraception

Study	Regions	Description	Kaiser Permanente investigators	Publications	
				About hormonal contraception	Ancillary questions
Walnut Creek Contraceptive Drug Study	Northern California	Prospective cohort study involving 16,638 women aged 18-54 years at entry	S Ramcharan, MD F Pellegrin, MD I Fisch, MD D Petitti, MD	3-13	14-18
Kaiser Permanente Birth Defects Study	Northern California	Study of pregnancy outcome in 34,350 women whose contraceptive history was recorded at time of first antenatal visit	S Ramcharan, MD F Pellegrin, MD P Shiono, PhD	19-24	25,26
Kaiser Permanente Cardiovascular Disease Study	Northern and Southern California	Case-control study examining risks of myocardial infarction (MI) and stroke in oral contraceptive users on the basis of interviews with 187 MI cases, 347 stroke cases, and 1552 controls	D Petitti, MD S Sidney, MD C Quesenberry, PhD A Bernstein, MD A Klatsky, MD S Wolf, MD	27-31	32,33
Emergency Contraception Demonstration Project	Southern California	Demonstration project to assess feasibility and acceptability of repackaging combination estrogen/progestin oral contraceptives as emergency contraception	D Petitti, MD D Preskill, MD D Postlethwaite, RNP	34-38	--
Venous Thromboembolism Study	Northern and Southern California	Case-control study examining risk of venous thromboembolism (VTE) in oral contraceptive users on the basis of interviews with 299 VTE cases and 819 controls	S Sidney, MD D Petitti, MD C Quesenberry, PhD	39	--
Walnut Creek Lipid and Lipoprotein Study	Northern California	Cross-sectional analysis of lipid levels in relation to oral contraceptive and other hormone use in 4978 women aged 21-62 years	D Bradley, MD J Wingerd, MS S Ramcharan, MD	40	41,42
Cervical Cancer Study	Northern California	Case-control study examining risk of invasive cervical cancer in oral contraceptive users on the basis of interviews with 69 cases and 216 controls	S Swan, PhD W Brown, MD	43	--

-- = no references address ancillary questions

until its last publication, the study included analyses conducted by a number of visiting researchers, including Susan Harlap, MD (an Israeli scientist then on sabbatical), Valerie Beral, PhD (a United Kingdom scientist then on sabbatical), and Diana Petitti, MD, MPH (then an Epidemic Intelligence Service (EIS) officer with the US Centers for Disease Control and Prevention [CDC]). Dr Petitti continued to work with data from the study well into the 1980s. Supplemented by data from record linkage, from chart review, and from reexamining subjects, data from the study were used in studies published as late as 1993.

Table 1³⁻⁴³ separately lists WCCDS publications that address issues of contraception³⁻¹³ and that address other topics related to women's health.¹⁴⁻¹⁸ The total number of these publications is large. Equally important are other contributions of the WCCDS to research in the KP Northern California Region specifically and in KP more generally. The WCCDS helped to establish the reputation of KP in epidemiologic research, demonstrated KP's ability to recruit subjects for large studies, and helped develop the infrastructure for conducting federally funded research at KP.

The Kaiser Permanente Birth Defects Study

In the early 1970s, studies from other countries raised concern about the possibility that use of hormonal contraceptives might affect a fetus in either of two circumstances: 1) when the fetus was conceived during use of oral contraceptives (which failed to prevent pregnancy) or 2) as a carry over from past exposure to hormones. Success of the WCCDS led the WCCDS team to receive an award from NICHD to conduct a study evaluating the effects of hormone exposure during

early gestation on birth defects. At the first antenatal visit, the study collected information from more than 35,000 women receiving prenatal care at the KP Oakland, Hayward, Richmond, and Walnut Creek Medical Centers in Northern California. Pregnancy outcomes were ascertained by chart review.

Publications from this study—the KP Birth Defects Study—are listed in Table 1.¹⁹⁻²⁶ As with the WCCDS, data from the Birth Defects Study were used to answer not only questions about the effect of contraceptives on birth defects but also many other questions about pregnancy outcome. In addition to its substantive contribution to knowledge about birth defects, the study further demonstrated the research capabilities of KP, enhanced the reputation of KP in the community, and contributed to the development of an infrastructure for conducting research in KP Northern California.

Vascular Disease Case-Control Studies

Epidemiologic studies conducted in the 1970s and 1980s established the increased risk of venous thromboembolism, ischemic stroke, and myocardial infarction from use of combined estrogen/progestin oral contraceptives. Shortly after reports first appeared describing vascular disease in oral contraceptive users, doses of estrogen in combined estrogen/progestin oral contraceptives were lowered in an attempt to reduce the vascular risks of oral contraceptive use. Attempts were also made to limit oral contraceptive use to women who were not at high risk for vascular disease (because of smoking or hypertension, for example). By the middle of the 1980s, confidence was high that changes in estrogen dose and in selection by clinicians of women for oral contra-

ceptive use had successfully reduced the vascular risks of oral contraceptive use; however, empirical data to prove this point were limited.

In 1988, NICHD issued a request for proposals for case-control studies of the risk of stroke and myocardial infarction in users of low-estrogen-dose oral contraceptives. KP was successful in its bid for a contract to conduct this study. The study was a milestone for KP insofar as data collection for the research spanned both the KP Northern and Southern California Regions.

The study of stroke and myocardial infarction was followed by an identically designed study that assessed the risk of venous thromboembolic disease in users of low-estrogen-dose oral contraceptives. For the study, data were collected in both the KP Northern and Southern California Regions. These data were the subject of publications addressing the primary question at the outset of the research^{27-31,39} as well as ancillary questions^{32,33} about vascular disease epidemiology in women of reproductive age (Table 1). The studies were important for establishing the success of interregional collaborative research.

Emergency Contraception Demonstration Project

As early as 1975, researchers and clinicians recognized that a high dose of combination estrogen/progestin oral contraceptives could prevent pregnancy if taken shortly after an unprotected act of intercourse. (A hormonal contraceptive drug taken this way was initially called "the morning-after pill" and was later renamed "emergency contraception.") This practice constituted off-label use of combined estrogen/progestin oral contraceptives and was not widespread.

The WCCDS helped to establish the reputation of KP in epidemiologic research, demonstrated KP's ability to recruit subjects for large studies ...

Table 2. Other publications on hormonal contraception involving Kaiser Permanente members, data, and researchers

Description	Kaiser Permanente contribution	Publications
Multicenter collaborative study	KP members were subjects. KP researchers coauthored study publications.	44-46
Case reports of adverse events in oral contraceptive users	Data derived from medical records of KP members. Publications authored by KP researchers.	47,48
Discussion of methodologic problems in the study of oral contraceptives	Publications authored by KP researchers.	49,50
Review of the effects of hormonal contraception	Publications authored by KP researchers.	51-57

Beginning in the mid-1990s, several women's advocacy groups began to promote emergency contraception and to educate the public and physicians about it. Emergency contraception was difficult to promote, in part because it required physicians to provide individualized instruction on how to break up a package of combined oral contraceptives. Moreover, combined estrogen/progestin oral contraceptives exist in many different formulations containing different amounts of estrogen and progestin. Thus, the number of pills to be taken differs for different formulations of combined estrogen/progestin oral contraceptives.

In 1996, KP was approached by the Pacific Women's Health Institute (a not-for-profit women's health research institute based in Los Angeles) about a possible joint project designed to demonstrate the feasibility and acceptability of promoting hormonal emergency contraception in a community setting. External funds were secured to conduct such a project in San Diego County, but partner organizations in San Diego withdrew from the project because of concern about legal liability of promoting off-label use of a drug. The project went forward through KP in San Diego.

The project was highly successful

and was the KP Southern California Region's nominee for the Vohs Award for Quality³⁷ as well as the basis for several publications (Table 1).^{34-36,38} The success of the project at KP was influential in the decision of other organizations (for example, Planned Parenthood and various community clinics) to get involved in promoting emergency hormonal contraception.

Other Studies and Contributions

Table 1 lists other research studies on hormonal contraception conducted solely at KP.⁴⁰⁻⁴² KP researchers and KP data made additional contributions to knowledge about hormonal contraception (Table 2).⁴⁴⁻⁵⁷ These contributions take many forms, including case reports, new methodology for contraceptive research, and reviews and summaries of the relevant medical literature.

Summary and Conclusion

The availability of hormonal contraceptives spawned changes in the social relations between men and women and enabled revolutionary changes in the roles of women in society. The contribution of hormonal contraception to improving the status of women worldwide is difficult to overestimate. Studies that

have established the magnitude of risks and benefits of hormonal contraception have been instrumental for developing policies regarding hormonal contraception and for providing information that helps individuals and couples to make informed choices about childbearing.

For almost four decades, KP researchers have made sustained contributions to the advancement of knowledge on hormonal contraception. Data collected in studies of hormonal contraception have been used to address a variety of other important questions about women's health. Participation in research on hormonal contraception has made important contributions to the research infrastructure of the KP Northern and Southern California Regions and at KP nationally. Research on hormonal contraception has enhanced the research reputation of KP locally, nationally, and internationally. ❖

Acknowledgments

We wish to acknowledge the many people, both inside and outside Kaiser Permanente, who contributed to the research described here, including those who played a role in formulating scientific questions, authoring and coauthoring publications, collecting and analyzing data, and participating in the research as subjects. Special thanks to Philip A Corfiman, MD, who filled in many of the details on the history of the Walnut Creek Contraceptive Drug Study.

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The Impossible

The difficult is that which can be done immediately; the impossible takes a little longer.

— George Santayana, 1863-1952, Spanish-American philosopher, poet and critic



"Jessie"

acrylic on canvas

By Marsha Balian, NP

Ms Balian is a Nurse Practitioner in the Ob/Gyn Department
at the Oakland Medical Center in California.

More of Ms Balian's art can be found on the cover and page 72.

Translating Research into Innovative Practices



Debbie Postlethwaite, RNP, MPH, Women's Health Director of Projects and member of the Ob/Gyn Department at Daly City medical office in the Northern California Region

In 1998, the President's Advisory Commission on Consumer Protection and Quality in the Health Care Industry reported that improving the quality of health care "requires a commitment to delivering health care based on sound scientific evidence and continuously innovating new, effective health care practices and preventive approaches."¹ Kaiser Permanente (KP) has a longstanding reputation for doing just that. Whether based on sound research conducted externally or internally, KP has the capacity and infrastructure to effectively transition research into innovative approaches to health care delivery and to health promotion and prevention.

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Many theories are cited in the literature about how research is effectively translated in innovative and evolving practices. Most of them include several common themes. First, there must be strong evidence for the need for change and appropriate identification of the problem. Assembling a team of stakeholders or

supportive opinion leaders to review internal and external data is the next step in forming comprehensive strategies and in participating in the diffusion process. Strong organizational commitment is also essential to ensure that adequate resources are available. A multidisciplinary approach is needed to ensure that a variety of effective strategies will be employed to effect change. Finally, diffusion of change and innovation takes time and involves conflict. To quote from the *Harvard Business Review*, it takes about 17 years on average for new research to become standard practice.²

I believe that KP is ahead of the curve. The award-winning Women's Health programs included in this issue are excellent examples of our ability to effectively translate research into innovative health practices. ❖

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Intelligence

Intelligence in a system emerges when it connects to itself in diverse ways.

— Margaret Wheatley, author and leadership trainer

Managing High-Risk Obstetric Cases and Analyzing Neonatal Outcome: The KP Northern California Regional Perinatal Service Center

By Yvonne Crites, MD
Jenny Ching, RN, BSN
Connie Lessner, RN
Deborah Ray, MD

Located in Santa Clara, California, the Kaiser Permanente (KP) Northern California Regional Perinatal Service Center provides obstetric care to high-risk women throughout Northern California. Services designed to prevent preterm birth began in 1991, and the center has expanded to include home hypertension management, home diabetes management, hyperemesis support, and home nonstress testing programs. The goals of the center are to provide clinical services, to coordinate and maximize resources via telecommunications, to emphasize patient education, to empower patients in self-assessment and lifestyle change, and to support clinicians in the delivery of care. The center also conducts perinatal outcome studies and clinical trials.

Donald Dyson, MD, a maternal-fetal medicine specialist who was then at KP Santa Clara, identified a causal connection between preterm birth and perinatal mortality and morbidity in our Health Plan members. From 1986 through 1989, Dr Dyson conducted a study¹ that evaluated care of patients at risk for preterm labor or delivery. Results of the study suggested that patient outcomes were improved through use of an

organized education and prevention program and, for twins, through use of home uterine activity monitoring. However, the efficacy of management schemes and technology in the care of mothers at risk for preterm labor remained surrounded by controversy.²⁻⁴ Consistent risk criteria and a Health Plan policy for benefit coverage were not defined at the regional level at KP, so the care of patients at risk for preterm labor varied by medical center. In response to these issues, Dr Dyson submitted a proposal to the TPMG Associate Executive Director and to the Perinatal Council to establish a regional program that would provide this intervention for Health Plan members at risk for preterm delivery. Dr Dyson then created the Regional Perinatal Service Center in 1991 to support the preterm birth prevention program and to meet the following objectives:

- Develop a system for identifying pregnant women at risk for preterm labor;
- Develop patient and clinician education tools and guidelines; and
- Create a perinatal database to analyze utilization and effectiveness of interventions designed to decrease preterm delivery.

These three components support KP's commitment to disease prevention and self-care promotion, continuity of care, identification of at-risk populations, and analysis of outcomes.

The center began with a census of 20 patients at risk for preterm delivery. Along with Karen Danbe, RN; Jenny Ching, RN; Judy Bamber, RN; and others, Dr Dyson conducted a new study to determine the best preventive care for women at risk for preterm delivery. The study, approved by the KP Northern California (KPNC) Institutional Review Board (IRB), began in May 1992 and was completed in August 1996. This randomized clinical trial compared delivery outcome for three methods of management. Shortly after the study was initiated, a risk assessment tool was developed in collaboration with other KP Regions and was implemented in the KPNC Region to track incidence of risk factors for preterm delivery in the Northern California KP member population. In addition, guidelines for managing high-risk patients were distributed to every provider of obstetric care.

As a result of our research conclusions and validation of our risk assessment tool, the KPNC Perinatologists

... identified a causal connection between preterm birth and perinatal mortality and morbidity in our Health Plan members.

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Peer Group provided prevention recommendations for regional management of at-risk perinatal patients. These recommendations included risk screening of the perinatal population and education about preventive self-care techniques.

This research was presented at the 1997 meeting of the Society of Perinatal Obstetricians and was given the award for Best Outcome Study. The study showed no difference in outcome (preterm delivery) between daily nursing contact (with or without home monitoring of uterine activity) and weekly nursing contact. This study was published in the *New England Journal of Medicine* in January 1998.⁵

In 1998, Dr Dyson; Karen Danbe, RN; Jenny Ching, RN; Judy Bamber, RN; and the Perinatal Service Center staff received KP's prestigious James A Vohs Award for providing high-quality care. The award citation stated that the Preterm Birth Prevention Program serves as a model for other areas of medical practice by combining patient education and teams of health care professionals with a strong focus on preventive care.

The Preterm Birth Prevention Program primarily addressed two qual-

ity issues: 1) use of a Regionwide screening tool with a screening rate of 88% to 90% and 2) ongoing outcome research and education.

To track important perinatal data, we implemented a perinatal operational and research database in 1991. The database supports care as well as ad hoc queries and standard reports that generate outcome data for providers of obstetric care. Reports are created to match service data to mainframe data. Standard reports describe preterm delivery at various gestational ages, by risk factor, by facility of screening, and by facility of delivery.

Because 66% of our preterm deliveries before 35 weeks were in women who had no identifiable risk for preterm delivery, we developed an educational pamphlet for low-risk patients. (The pamphlet is now included in the *Healthy Beginnings Newsletter* #4.) We then studied the reliability of tests that might be more helpful or that might be useful as additional predictors for preterm labor or delivery.

The fetal fibronectin (FFN) study began in 1998 and evaluated use of the FFN test as a predictor of preterm delivery in symptomatic women. Presence of FFN in cervical-vaginal secretions is thought to be a marker for inflammation and preterm birth.⁶⁻⁸ However, FFN had not been studied in a population with demographic characteristics similar to the KPNC member population. Moreover, a testing method was needed to provide test results rapidly as opposed to the 24-hour turnaround time for the ELISA test. Our study showed that a test result

Patients are educated about the warning signs and symptoms of preterm labor and are instructed to perform twice-daily self-assessment for contractions.

positive for FFN was associated with increased risk for delivery within 7 days, delivery within 14 days, and delivery before 35 weeks, particularly in patients presenting before 32 weeks. Most important, only 1% of symptomatic women with a negative FFN test result delivered within 7

days. On the basis of our study results, the FFN test was implemented in the KP Northern California Region in March 2001 with specific guidelines and protocol for its use. In 2002, after the FFN assay was implemented, a prospective cohort study compared patients who had threatened preterm labor during 2000 (before implementation of the FFN assay) and 2001 (after systemwide implementation of the FFN assay). This study found that admission rates decreased from 88% (in 2000) to 47% (in 2001) and that tocolysis use decreased from 41% (in 2000) to 27% (in 2001). On the basis of admission rates, cost analysis showed that routine use of the FFN assay could lead KP to realize savings of \$1 million annually without increase in rates of preterm delivery. The center continues to collect FFN data and delivery outcome and provides data to the KPNC Regional Perinatologists Peer Group on a yearly basis.

Currently, every pregnant patient seen in a KP obstetrics/gynecology clinic in Northern California is screened with the Risk Assessment for Preterm Labor form. After the risk is identified and validated, the at-risk patient is enrolled for service. Patients are educated about the warning signs and symptoms of preterm labor and are instructed to

Table 1. Kaiser Permanente Northern California Regional Perinatal Service Center Core Program members

Program member	Kaiser Permanente facility
Donald Dyson, MD	Santa Clara Medical Center
Colleen Hendershott, MD	Sacramento Medical Center
Darrell Edwards, MD	Hayward Medical Center
Larry Newman, MD	Oakland Medical Center
Alexander Mentakis, MD	South Sacramento Medical Center
Rosa Won, MD	Hayward Medical Center
David Walton, MD	Oakland Medical Center
Hamid Safari, MD	Fresno Medical Center
Paul Meyer, MD	Santa Clara Medical Center
Robin Field, MD	San Francisco Medical Center
Jeffrey Maier, MD	Walnut Creek Medical Center
Thomas Downs, MD	Vallejo Medical Center
Anne Regenstein, MD	San Francisco Medical Center
Jeffrey Traynor, MD	Walnut Creek Medical Center

perform twice-daily self-assessment for contractions. Service commences ideally at 24 weeks' gestation and concludes at 36 weeks' gestation. In the KPNC Region, the preterm delivery rate is 3.1% for pregnancies shorter than 35 weeks and is 7.8% for pregnancies shorter than 37 weeks—a rate well below the statewide California rate of 10.2% and the nationwide rate of 12.1%.

In 1994, we added the Home Hypertension Program to our service line. This program assists pregnant hypertensive women who would otherwise require hospitalization or frequent outpatient visits. A two-tier surveillance service is provided. Level 1 is a high-acuity service that provides intensive surveillance for third-trimester patients with preeclampsia or who are at clinically significant risk for preeclampsia. Patients perform blood pressure monitoring two times per day, check urine protein every morning, and check for signs and symptoms of preeclampsia. These patients are contacted daily by the center. Level 2 is a lower-acuity service for patients whose chronic hypertension remains stable throughout the pregnancy. These patients are contacted weekly to report their high and low systolic and diastolic pressures. Patients can switch from intensive surveillance at or after 28 weeks' gestation (ie, they may receive daily contact calls) if medically needed. TPGM physicians support the program because it has allowed at-home case management for more patients and has decreased the number of clinic visits required to monitor for preeclampsia.

In 1995, the Home Nonstress Testing Program was begun to assist specific high-risk patients who require antepartum fetal heart rate monitoring. This service is offered in lieu of frequent medical office

visits or hospitalization. Patients are instructed to perform nonstress tests (NST) at home and then transmit the tracing for interpretation by the registered nurse at the center. Among the 88 patients enrolled in the program from 1996 through 2003, more than 1500 antepartum hospital days were saved without adverse neonatal outcome.

In 1996, the Home Diabetes Management Program began for patients with Type I, Type II, and gestational diabetes. After patients in this program receive their initial education at their local clinic, the center provides ongoing education and support regarding dietary choices, meal planning, and exercise. The center's registered dietitian assists patients with additional nutritional consultation and tips regarding special dietary needs, such as vegetarian meal planning or ethnic food exchanges. Nurses at the center reinforce lifestyle and daily exercise. Patients are contacted at least weekly by the nurse to review blood glucose levels. The center nurse can adjust patients' insulin in accordance with our insulin adjustment protocol. Service begins when the provider makes a referral, and service concludes at delivery. All patients with gestational diabetes mellitus also receive six-week postpartum follow-up testing of glucose levels and are advised of the results as well as the need for appropriate lifestyle changes and follow-up.

The center also developed a set of diabetes outcome reports that provides the rate of macrosomia and maternal and neonatal complications related to diabetes and pregnancy. Our preliminary data suggests that improved outcomes may result for babies of diabetic women who enroll in the service. The center will continue to participate with Gabriel Escobar, MD, at the Divi-

sion of Research, to evaluate our data on diabetes outcomes.

Our newest service, the Hyperemesis Support program, is available for patients with electrolyte imbalance, weight loss, or who require intravenous hydration. Daily contact calls are made during the acute phase. The center nurse assesses 24-hour intake of fluids and solids, episodes of vomiting, urine color, medication times and dosages, daily weight, and possibly the need for intravenous hydration. Contact calls become less frequent when the patient's condition improves. Service is discontinued when the patient has stable weight or weight gain.

The center is open 7 days per week, 24 hours per day, and is staffed with registered nurses. The role of our nurses is as challenging as hospital nursing and requires nurses to use a variety of skills: listening, educating, counseling, triaging, and helping pregnant women to change their lifestyles during high-risk pregnancy. The nurses make every effort to make each patient's experience safer and less stressful. The nurses often provide complex teaching and education over the telephone: for example, programming an infusion device or setting up the NST equipment at home. Making critical nursing diagnoses can be quite challenging using only the telephone, telecommunication translation services, and computer. The nurses' clinical experience and listening skills are the primary tools for making decisions that directly affect pregnancy outcome.

Since its inception, the center has applied new technology, such as a local area network (LAN); exclusive use of computers for patient man-

The nurses often provide complex teaching and education over the telephone ...

agement and access to a customized perinatal database; 24-hour call processing in English, Spanish, and Cantonese; and telecommunications for remote transmission of patient data 24 hours per day, 7 days per week. This improved access to care has enabled early discharge from the hospital and reinforces each patient's plan of care between medical office visits. After-hours coverage by a registered nurse (ie, 11:30 pm to 7:00 am) is provided via laptop and modem connection to our server.

Over the past 13 years, the center has grown in service options and in census. In 2003, the center enrolled 3201 patients. Currently, the center manages cases of approximately 860 patients, of whom 30% are enrolled in the Preterm Labor Program, 24% in our Home Hypertension Program, 43% in our Diabetes Management Program, and 4% in the Hyperemesis Program.

The experience we have gained and the information we have gathered—in both research and operations—are transferable to other ar-

eas. The center has shared information with staff of the Kaiser Foundation Health Plan and Permanente Medical Groups in the Ohio, Mid-Atlantic, Hawaii, Northwest, and Colorado geographic areas. The materials most frequently provided include patient educational materials, outcome data, and the Risk Assessment for Preterm labor form. In the future, operations related to services provided by the Perinatal Service Center may be extended to patients outside our geographic area by providing broader access to the department's toll-free number. ❖

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... in both research and operations—are transferable to other areas.

Masterpiece

The great and glorious masterpiece of man is how to live with a purpose.

— Michel de Montaigne, 1533-92, French philosopher

Minilaparotomy: A Minimally Invasive Alternative for Major Gynecologic Abdominal Surgery

By Mark H Glasser, MD

Presented at the Global Congress of Gynecologic Endoscopy, the 33rd Annual meeting of the American Association of Gynecologic Laparoscopists, San Francisco, California, November 10-13, 2004, and published in abstract form in J Am Assoc Gynecol Laparosc 2004 Aug;11(3):S13; related publication, Glasser MH. Minilaparotomy myomectomy: a minimally invasive alternative for the large fibroid uterus. J Am Assoc Gynecol Laparosc May/June 2005. In press.

Introduction

In the 1960s or 1970s, gynecology residency training emphasized vaginal hysterectomy as the preferred technique for treating many conditions now managed by less invasive alternatives. This led gynecologists to become very skilled at operating through very small incisions. More recently, as these less invasive procedures are rapidly becoming the standard of care, and women are having fewer babies, vaginal surgery is performed less often. Because our young colleagues are acquiring less experience with this technique, the skill of operating through a very small incision is becoming a lost art. Of the 600,000 hysterectomies done in the United States each year—a number which has remained stable for the past 20 years—65% to 75% are done through large abdominal incisions.¹ Rates in the Kaiser Permanente Northern California (KPNC) Region are somewhat better: The rate of abdominal hysterectomy is 68%, the rate of vaginal hysterectomy is 21%, and 11% of these procedures are done laparoscopically.

Although laparoscopic hysterectomy offers a minimally invasive alternative when vaginal hysterectomy is contraindicated or considered too difficult by the surgeon, laparoscopic hysterectomy has many drawbacks. The procedure is very costly because of its requirements for equipment and time in the operating suite and because the procedure has a very steep learning curve. However, when length of hospital stay and postoperative utilization of medical services are taken into account, laparoscopic hysterectomy in the KPNC Region is less expensive than abdominal hysterectomy but substantially more expensive than vaginal

hysterectomy. In addition, compared with patients who have the more invasive (ie, abdominal) procedure, our patients who undergo vaginal or laparoscopic hysterectomy have better postoperative quality of life.²

Development of Minilaparotomy Techniques

Use of minilaparotomy in surgery for benign gynecologic disease has been well established.³ Laparoscopically assisted myomectomy was first reported by Nezhat et al in 1994.⁴ In their review of 57 cases, these authors concluded that the use of the minilaparotomy incision is a safe alternative to myomectomy done by laparotomy. Minilaparotomy is technically less difficult to perform than laparoscopic myomectomy, allows better closure of the uterine defect, and may require less time to perform. Most women in the series reported by Nezhat et al⁴ returned to normal activity within three weeks.

In 2002, we adopted the Pelosi minilaparotomy hysterectomy technique as an effective alternative to laparoscopic hysterectomy and standard open laparotomy hysterectomy. First presented at the Global Congress of Gynecologic Endoscopy in 2002 and described in *OBG Management* in April 2003,⁵ the procedure relies on traditional open techniques learned by all Ob/Gyn residents and relies also on use of an inexpensive, soft, sleeve-type self-retaining abdominal retractor. Minilaparotomy is a minimally invasive procedure ideal for gynecologists who are less skilled in vaginal or laparoscopic surgery and who are more comfortable with the (standard) abdominal approach. In addition to combining the surgical principles and techniques of vaginal and laparoscopic surgery, minilaparotomy requires the same postoperative care as less invasive procedures.

Detailed description of the surgical technique would be more appropriate for an obstetrics/gynecology journal; here I describe some of the most important technical principles of minilaparotomy.

Minilaparotomy is technically less difficult to perform than laparoscopic myomectomy ...

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Technical Overview of Minilaparotomy

The minilaparotomy procedure begins with provision of patient education and clarifying appropriate expectations. We inform patients that instead of using the laparoscope (for which, incidentally, I have been a zealous advocate for the past 15 years), we will instead make a 4- to 6-cm suprapubic incision which will allow the patient to go home the same day. We freely show patients actual surgical photographs and videotapes (one⁶ of which contains a postoperative interview with a patient and is available in the KPNC Multimedia Library in Oakland). Our patients—and especially those referred to us from distant KP facilities—are always given the option of spending the night in the hospital.

The 4- to 6-cm cruciate suprapubic incision was first described by Kustner in 1896 and was recently modified by Pelosi.⁷ The horizontal skin incision and vertical incisions on the deeper layers allow more exposure than the standard Pfannensteil or Maylard horizontal incisions. The skin and fascia are first injected with 0.25% bupivacaine (Marcaine, AstraZeneca Pharmaceuticals, Wilmington DE) with epinephrine even though the procedure is done with the patient under general anesthesia. Use of the atraumatic Mobius retractor (Apple Medical, Marlboro, MA) provides a symmetric round operating field that excellently exposes the underlying pelvic viscera.

Retraction force is distributed equally around the incision, and the rectus muscles are not traumatized by the overstretched metal blades of the commonly-used Balfour or O'Connor-O'Sullivan self-retaining retractors.



Figure 1. Photograph taken during supracervical hysterectomy shows adnexal pedicle being elevated through the minilaparotomy incision before clamping. The 5-cm incision is held open by a Mobius retractor.

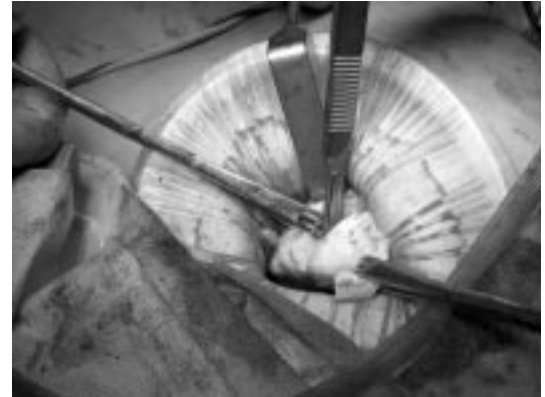


Figure 2. Photograph shows 12-cm anterior myoma morcellated through a 4-cm minilaparotomy incision.

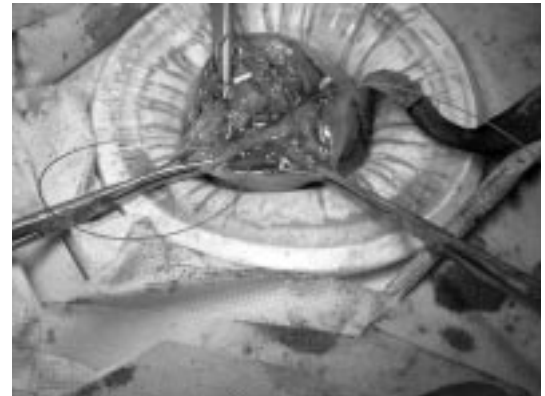


Figure 3. Photograph taken during minilaparotomy myomectomy shows deep suturing of uterine defect.

This situation creates much less postoperative abdominal discomfort for the patient and enables early ambulation. The flexible plastic material of the retractor lines the incision and thus protects it from contamination. In addition, by compressing the layers of the abdominal wall, the retractor provides tamponade of small bleeders. (This reduction of abdominal wall thickness may be helpful, particularly during surgery in obese patients.) Instead of exposing the entire uterus—which, if the myoma is large, may extend to the level of the umbilicus—we need only to expose the vascular pedicles which are being clamped and cut (Figure 1). A good uterine manipulator allows us to deviate and rotate the uterus to expose these pedicles. Regardless of uterine size, the major vasculature to the uterus arises from the pelvic sidewall at the same level (ie, below the pelvic brim). The flexible retractor allows us to move the incision from one side to the other. Because of this flexibility, performing minilaparotomy is like performing a vaginal hysterectomy abdominally.



Figure 4. Photograph shows 848-g fibroid removed through a 5-cm minilaparotomy incision. (Balance shown by permission of the manufacturer, Acculab, Edgewood, New York.)

After the pedicles are clamped, cut, and tied, the uterus is amputated from the cervix and is morcellated by using a standard #10 scalpel blade (Figures 2,3). Figure 4 shows an 848-g fibroid which had been removed through a 5-cm minilaparotomy incision. Removal of this large tumor dramatically reduced the patient's abdominal profile (Figures 5,6). The largest uterus removed using this technique weighed 3250 g (more than some infants) and was removed through an 8-cm incision. Another weighed 1780 g (the size of the uterus in the 26th week of pregnancy) and was removed through a 6-cm incision. That patient was discharged from the hospital 16 hours postoperatively after undergoing a 115-minute procedure and returned to work less than two weeks later. We are compiling for possible publication our data from the last two years comparing minilaparotomy supracervical hysterectomy and standard abdominal hysterectomy. Initial results of this comparison are encouraging.

The small incision is not the only factor that enables the patient to be discharged early from the hospital. During the early postoperative phase, much of the incisional discomfort is eliminated by liberal use of long-acting local anesthetic before making the skin incision and before closing. This reduction of incisional pain

allows early ambulation and more rapid return of bowel function. We use a large (8-mg) intraoperative dose of dexamethasone (Decadron, Merck, Whitehouse Station NJ) intravenously and 60 mg of ketorolac (Toradol, Roche, Nutley NJ) intramuscularly to minimize emesis and inflammation.

The Foley catheter is removed in the operating suite, and the patient is fed as soon as she wants food or drink. The intravenous line is removed as soon as the patient can tolerate oral administration of fluid. Encouragement and help from the nursing staff is the key to both early ambulation and early discharge from the hospital. Keeping these patients in the ambulatory surgery unit is advantageous because of the skill of the nurses in this area. Nothing is more disheartening to a physician than finding the patient—who was scheduled for discharge that morning—semicomatose in bed with the siderails up, oxygen being administered, and an intravenous line running. Unfortunately, this care

... reduction of incisional pain allows early ambulation and more rapid return of bowel function.



Figure 5. Photograph shows preoperative abdominal profile of patient from whom 848-g fibroid was later removed.



Figure 6. Photograph shows postoperative abdominal profile of same patient, who left the hospital four hours after surgery.

Table 1. Characteristics of minilaparotomy myomectomy performed in 139 patients^a at the KP San Rafael Medical Center from January 1995 through December 2003

	Mean (range)
Patient age	38.9 yr (23-56 yr)
Weight of myoma	283.7 g (30-925 g)
Length of hospital stay	13.6 hr (4-48 hr) ^b
Time in operating suite	110 min (55-260 min)
Estimated blood loss	330 mL (50-2000 mL)

^aData represent 24 patients with 4-hour hospital stay, 61 patients with 8-hour hospital stay, 52 patients with 23-hour hospital stay, and 2 patients with 48-hour hospital stay.

^bHysterectomy was performed in 1 patient for emergency hemorrhage and in 2 patients who had recurrent fibroids.

path is common after standard abdominal hysterectomy, and many of our inpatient nurses are accustomed to it. We are therefore now developing an intensive education program in which nurses from the ambulatory surgery department educate our medical-surgical nurses about early discharge.

Minilaparotomy is now our standard technique for performing abdominal myomectomy. We have performed nearly 150 of these procedures at the KP San Rafael Medical Center since 1995, and a report on our first 139 cases (Table 1) is in press.⁸ In that paper, I conclude that:

“[m]inilap[arotomy] myomectomy with or without laparoscopic assistance is a minimally invasive alternative to standard open myomectomy and laparoscopic myomectomy. This procedure achieves a uterine repair equal to that of open myomectomy, affords the ability to palpate the uterus and has the additional advantages of same day discharge and rapid return to normal activity. There is no need for expensive electronic morcellators with very expensive disposable blades. The cost of the Mobius retractor is about the same as some disposable trocars. Very large myomas which would not be managed laparoscopically by the vast majority of practicing gynecologists can be removed using this procedure. The procedure is far easier to teach than laparoscopic myomectomy because of the

high degree of technical skill required for the latter. We certainly should not abandon laparoscopic myomectomy for selected cases, but I feel strongly that this procedure should be adopted as a minimally invasive alternative for those who don't feel comfortable with the laparoscopic approach.”⁸

Minilaparotomy is contraindicated in cases where severe adhesions might exist (eg, endometriosis, pre-

vious myomectomy, previous pelvic inflammatory disease, bowel disease, or malignancy). In those cases, open laparoscopy is strongly recommended to assess severity of the condition and to determine whether minilaparotomy is feasible. If clinically significant pathology inappropriate for minilaparotomy is detected at this assessment, the surgeon should perform standard laparotomy.

A logical question might be, “What size of incision constitutes minilaparotomy?” The size of the incision is not important: If the operation was originally planned to be done through an 8-in Pfannensteil or midline incision, then an 8-cm cruciate incision certainly constitutes a minilaparotomy. If the same meticulous surgical technique is used to avoid tissue trauma, bowel handling, and packing, then the procedure allows the patient to feel better sooner and enables the same early-discharge care path.

Conclusion

Minilaparotomy is substantially more cost-effective than prolonged laparoscopic supracervical or laparoscopically assisted vaginal hysterectomy. I again emphasize that minilaparotomy is not an appropriate substitute for standard vaginal hysterectomy, which remains the most cost-effective procedure with the least disability if the early-discharge algorithm is followed. At the KP San Rafael Medical Center, 50% of patients who undergo vaginal hysterectomy go home the same day, and 98% are discharged within 23 hours—a dramatic change from the old “rule” I learned in residency, ie, that patients who undergo abdominal hysterectomy stay in the hospital for at least five to seven days postoperatively and that patients who undergo vaginal hysterectomy stay in the hospital for three days.

More and more of our KPNC facilities are beginning to adopt minilaparotomy hysterectomy because it is far easier to teach than vaginal or laparoscopic hysterectomy and produces excellent results. The procedure may also be useful in urologic practice (eg, for pelvic node dissection) and in some general surgery procedures. Nonetheless, despite the utility of having this minimally invasive approach in our surgical repertoire, we must continue to use more conservative alternatives to hysterectomy, such as “watchful waiting,” medical therapy, and endometrial ablation. ♦

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Song of Myself

Dazzling and tremendous how quick the sun-rise would kill me,
 If I could not now and always send sun-rise out of me.
 We also ascend dazzling and tremendous as the sun,
 We found our own O my soul in the calm and cool of the daybreak.

— *Songs of Myself*, *Walt Whitman*, 1819-92, *American poet*

From the Departments of Obstetrics and Gynecology and Urology, Hawaii Permanente Medical Group, Honolulu

Laparoscopically Assisted Vaginal Extraction of the Kidney after Laparoscopic Radical Nephrectomy

By Christian S Sunoo, MD
Randal A Aaberg, MD
Joyce K Nakamura, MD

We describe Hawaii's first retroperitoneal radical nephrectomy followed by laparoscopically assisted vaginal extraction of the kidney. This surgical procedure was a collaboration between laparoscopists from the Departments of Gynecology and Urology at the Kaiser Permanente medical center in Hawaii.

Abstract

Background: Gynecologists have long used a vaginal incision for surgical treatment of pelvic pathology. More recently, however, laparoscopy has allowed gynecologists and other specialists to replace laparotomy with minimally invasive surgical techniques. The combination of laparoscopic and vaginal approaches has increased the surgical armamentarium of both the gynecologist and the urologist.

Case: A gynecologist found a renal cell carcinoma in a 52-year-old woman. The Urology and Gynecology Departments of the Kaiser Permanente (KP) Hawaii Region (KP Hawaii) planned a combined minimally invasive surgical procedure that became Hawaii's first reported retroperitoneal radical nephrectomy followed by laparoscopically assisted vaginal extraction of an intact kidney.

Conclusion: Collaboration between laparoscopic surgeons in the Departments of Urology and Gynecology has allowed us to share surgical techniques and approaches to perform minimally invasive surgery instead of using more morbid large incisions of the abdomen or flank as required previously.

Introduction

The primary treatment for renal cell carcinoma is surgery—either traditional radical nephrectomy, done through an open incision; or, more recently, laparoscopic radical nephrectomy, a procedure which uses minimally invasive surgical techniques.¹ Follow-up studies^{2,3} have shown that laparoscopic radical nephrectomy has rates of morbidity, mortality and cancer-free survival similar to those associated with the open surgical approach.

Laparoscopic radical nephrectomy can be done either transperitoneally or retroperitoneally. Potential advantages of the retroperitoneal approach include direct access to the renal artery (because of the posterior position of the trocars) and shorter time in the operating suite (because mobilization of the bowel is not necessary). When nephrectomy is done as treatment for malignancy, extraction of the intact specimen offers the safest surgical approach, the lowest possibility of tumor cell seeding, and the most comprehensive pathology evaluation. To remove the intact specimen after laparoscopic nephrectomy, an incision measur-

ing 4- to 7-cm has been necessary.

The combination of laparoscopic nephrectomy with an incision in the vagina and vaginal extraction of the intact kidney has been described in the urologic literature^{4,6} but to date has not been duplicated by our colleagues in the Hawaiian medical community. Indeed, one of the advantages of working at Kaiser Permanente (KP) Hawaii, a fully integrated health care organization, is our capacity for collaboration among multiple disciplines to provide the best-quality care for patients. This process gives us the opportunity to use the expertise of different surgical departments to quickly acquire the skills necessary to duplicate the successes of others as well as to develop innovative approaches to traditional surgical tasks.

Case Report

A 52-year-old, gravida 4, para 4 woman was seen in the gynecology department for evaluation of pelvic pain. A computed tomography (CT) scan showed a 4-cm solid enhancing mass in the lower pole of the left kidney. The uterus and ovaries were unremarkable. Urologic consultation was obtained. The patient made an informed decision to proceed with laparoscopic radical nephrectomy and vaginal extraction.

At surgery, the patient was placed in the lateral decubitus position, left side up. Assisted by the gynecolo-



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gist, the urologist performed the laparoscopic retroperitoneal radical nephrectomy using four ports. After completion of the nephrectomy, the kidney was placed into an Endo catch II bag (US Surgical, Norwalk, CT), and the drawstring was cinched down. Periaortic nodes were dissected, removed, and sent separately. The incisions were closed, and the patient was placed in the lithotomy position. An umbilical port was placed, and two 5-mm ports were then placed suprapubically and lateral to the epigastric vessels. With the patient placed in Trendelenburg and right lateral tilt position, the peritoneum was incised lateral to the left colon, and the retrieval bag containing the kidney was identified and pulled into the peritoneal cavity.

The laparoscope was pushed behind the uterus into the cul-de-sac so that the surgeon making the vaginal incision could see the light through the vagina. The drawstring was held down with a grasper at the cul-de-sac. The same surgeon made a transverse colpotomy incision using the light as a guide and grasped the drawstring, which was pushed through the vaginal incision from above. The vaginal incision was extended sharply and by stretching to approximately 5-cm. Using downward pressure from the lateral aspect of the grasper and pulling from the vaginal approach, the surgeon removed the intact kidney in the retrieval bag. The vaginal incision was closed with three figure-of-eight absorbable sutures.

The postoperative course was uneventful. Results of pathology examination showed a 4.0-cm renal cell carcinoma (T1a, N0, M0), Furhman grade 2.

Discussion

The first laparoscopic nephrectomy was described in 1991.¹ In

1993, urologists first reported vaginal extraction of the intact kidney after laparoscopic nephrectomy.^{5,6} Breda et al⁶ reported extraction of a noncancerous kidney. As treatment for transitional cell carcinoma in one patient, Dauleh and Townell⁵ removed one kidney via a retrieval

bag inserted through a vaginal port and in another patient removed one kidney intact but not protected by a bag. More recently, Gill et al⁴ described ten cases of vaginal extraction of kidney after laparoscopic nephrectomy using a retrieval bag: In five cases, the transperitoneal approach was taken with the vaginal incision made via laparoscopy; in the other five cases, the retroperitoneal approach was taken (ie, the peritoneal incision was made from the retroperitoneum), and the vaginal incision was made laparoscopically. No cases of recurrence at the incision or port site have been reported.

Conclusion

Presented from the gynecologist's perspective, this report describes vaginal extraction of the kidney by laparoscopic transperitoneal incision to retrieve the "bagged kidney" and transvaginal incision to enter the cul-de-sac.

In 1996, collaboration between the departments of urology and general surgery at KP led to the first laparoscopic nephrectomy for benign disease at our institution. Continued collaboration progressed naturally to use of laparoscopic radical nephrectomy as treatment for

Desire to provide state-of-the-art care and surgical options for our patients—and to broaden our own surgical experience—led the departments of urology and gynecology to collaboratively perform this first reported operation of its kind in the state of Hawaii.

malignant disease. Desire to provide state-of-the-art care and surgical options for our patients—and to broaden our own surgical experience—led the departments of urology and gynecology to collaboratively perform this first reported operation of its kind in the state of Hawaii. This continued shared work between surgeons

from different specialties has enabled our institution to take the next step in providing minimally invasive surgical options for this and other disease processes. ♦

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Women at Risk for Coronary Heart Disease: How Research is Translated Into Innovation and Quality Outcomes at Kaiser Permanente

By Eleanor Levin, MD, FACC
Joyce Arango, DrPH

Introduction

In the United States, coronary heart disease (CHD) is the primary cause of death in women and larger than the next 16 causes of death combined.¹ Six times as many women die of heart attack as from breast cancer.¹ Although onset lags ten years behind that of men, 38% of women die within one year of their first myocardial infarction (MI) compared with 25% of men.¹

Despite these statistics, however, women and their health care providers have for many years perpetuated a misconception that CHD in women is less prevalent and more benign than in men. This mistaken belief has resulted in less aggressive health care for women and less attention to risk factors that require preventive care in women. However, clinical practice guidelines of The Permanente Medical Group (TPMG) have long emphasized the premise that both primary and secondary preventive treatment should be as aggressive for women as for men.²⁻⁴

... 38% of women die within one year of their first myocardial infarction (MI) compared with 25% of men.¹

TPMG's Continuing Clinical Response to Evolving Research on Coronary Risk

Early trials of lipid-lowering therapy concentrated on male subjects. Some of the first studies showing the benefits of statins in women were the Air Force/Texas Coronary Atherosclerosis Prevention Study (AFCAPS/TexCAPS) trials,⁵ in which 997 of 6605 participants were women. These trials showed that for men and women with high-density lipoprotein (HDL) levels <50 mg/dL and other risk factors, aggressive lipid-lowering treatment could reduce the number of adverse cardiac events by 36% over five years. As a result of these findings, TPMG Regional 1998 Clinical Practice Guidelines for cholesterol management reemphasized the importance of aggressive medical treatment for women. A randomized, controlled trial with a similar time frame, the Heart

and Estrogen/Progestin Replacement Study (HERS),⁶ showed that women with known coronary artery disease (CAD) received no benefit from starting HT; and later evidence from the Women's Health Initiative (WHI)⁷ showed no benefit from primary prevention efforts. Each time, TPMG quickly revised its clinical practice guidelines.

From Words to Action: Making Guidelines Work

Guidelines alone have little benefit without effective implementation.⁸ Assisted by many innovative Kaiser Permanente (KP) leaders in Northern California (Table 1), TPMG has effectively implemented its stated treatment guidelines by using a combination of approaches. These approaches variously focus on patients, practitioners, or systems of providing care.

Patient-Focused Approaches

Patient-focused approaches include implementing programs at all KP Medical Centers for managing chronic conditions (eg, cholesterol management programs, MULTIFIT cardiac rehabilitation, and diabetes programs); extensive use of nonphysician primary care providers, including clinical pharmacists, clinical health educators, extended role nurses, and behavioral medicine specialists; multiple modalities of patient education, including printed and electronic materials and resources as well as classes and group appointments to address management of cardiac risk factors; and outreach using reminder letters, phone calls, and preventive health prompts at visit registration. A special patient education effort initiated in 2003, The Heart Attack Prevention Outreach campaign, was directed at women over age 40 years and included articles in the KP publication, *Member News* (Fall 2003). Personal letters from their clinicians as well as a special newsletter



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containing tools for risk assessment were mailed to homes of selected high-risk members.

Practitioner-Focused Approaches

Practitioner-focused approaches include dissemination of evidence-based clinical practice guidelines; "Medicine Today" update videoconferences; physician champions at all medical centers; each medical center having its own quality goals for lipid management; clinician-specific outreach lists; and clinician-specific monitoring reports. In addition, Population Care Registry member summary sheets for patients listed in the diabetes and CAD registries are available when patients visit a clinic for primary care services.

System-Focused Approaches

System-focused approaches include development and maintenance of disease registries; the Patient Integrated Log and Outreach Tracking (PILOT) system; Population Care registry member summary sheets; quarterly disease-specific monitoring reports with medical center- and facility-specific performance reporting; clinician-specific outreach and monitoring reports; and a coordinated regional and local implementation effort led by clinical leaders and local physician champions. Through use of standing orders and preprinted dis-

charge sheets that refer patients to outpatient disease management programs, inpatient care also promotes adherence to secondary prevention guidelines.

Additional Evidence-Based Approaches to Cardiac Risk Reduction

Other forms of therapy used for secondary and primary prevention of CHD have been shown to reduce CHD risk.⁹ For example, although nationwide trends show more women smoking cigarettes at earlier ages—and cigarette smoking is the greatest preventable cause of cardiovascular morbidity, associated with a threefold increased risk of MI in women¹⁰—this trend is not observed in our KP member population in Northern California: The current rate of smoking among KP Northern California (KPNC) members is 12%, compared with 16% statewide¹¹ and 22% nationally.¹² As part of the "Smoking as a Vital Sign" initiative, KP clinicians assess and document smoking status at each medical visit. Multiple options—prescription aids, widely available single- or multiple-session classes (a covered benefit), and a state-funded California Smokers Helpline—are available to KP members for smoking cessation support and referral. State of California laws also support cessation efforts by banning smoking in most public places.

Guidelines alone have little benefit without effective implementation.⁸

Table 1. Core team translating coronary risk research into clinical practice in the Kaiser Permanente Northern California Region (KPNC)

Denise Myers, RN, MPH	Program Director, Chronic Conditions Care Management & Education, Regional Health Education
Adria Beaver, RN	Cardiovascular Coordinator, Regional Health Education
Warren Taylor, MD	Medical Director, Chronic Conditions Management, The Permanente Medical Group
Marc Jaffe, MD	PHASE and Hypertension Regional Clinical Leader, The Permanente Medical Group
Phil Madvig, MD	Associate Executive Director, The Permanente Medical Group
Mike Ralston, MD	Director, Quality Implementation, Quality & Operations Support, The Permanente Medical Group
Julie Lenhart, RPh, MS	Consulting Manager, Northern California Guidelines Director, Quality & Operations Support
Laura Skabowski, MS	Senior Managerial Consultant, Quality & Operations Support
Lisa C Arellanes	Consulting Manager, Quality & Operations Support
Rhonda Woodling, MS	Analytic Manager, Quality & Operations Support
Fred Hom, MD	Diabetes Regional Clinical Leader, The Permanente Medical Group
Nancy Moline, RN	Diabetes Program Coordinator, Regional Health Education
Jennifer Torresen, MPH	Chronic Conditions Education Project Manager, Regional Health Education
Mindy Boccio, MPH	Senior Health Educator, Regional Health Education
Care Managers and Physician Champions/Mentors	Cholesterol Management, MULTIFIT, Hypertension, and Diabetes Programs, The Permanente Medical Group
CCM Implementation Site Coordinators and Program Managers	The Permanente Medical Group
PHASE Advisory Group	The Permanente Medical Group
PHASE Operations Group	The Permanente Medical Group

Aspirin has been shown to reduce risk of second MI in men and in women.⁹ For high-risk women, the American Heart Association and American College of Cardiology⁹ as well as our TPMG guidelines recommend prevention in the form of low-dose (75 to 162 mg) aspirin therapy. For high-risk women who have had an adverse cardiac event, this preventive treatment is delivered through the MULTIFIT program or, for non-participants, through primary care providers. Because few data are available from primary prevention trials that included women, aspirin recommendations are less clear for women at intermediate and lower risk. The TPMG 2003 Heart Attack Prevention Outreach campaign was directed at high-risk women and included information and recommendations for taking low-dose aspirin for preventing MI.

Regular exercise is associated with decrease in all causes of mortality in women, and individual studies suggest that regular exercise may also reduce CHD (perhaps by modifying other risk factors).⁹ In its clinical practice guidelines, TPMG has emphasized lifestyle change and encourages 30 minutes of moderate-intensity exercise on most days of the week. Within the MULTIFIT program, this emphasis is shown through an exercise prescription, which in the primary care setting is communicated via patient education materials and during clinic visits. MULTIFIT program participants report that they engage in a mean 5.2 sessions of physical exercise activity per week and that the mean duration of each session is 37 minutes.

Compared with nondiabetic women and diabetic men, women with Type 2 diabetes (diabetes mellitus, DM) have a greater risk of cardiovascular disease.¹³ Eighty-five percent of diabetic patients die because of a thrombotic event, and 70% of these deaths result from cardiovascular complications.¹⁴ In women, diabetes counteracts any delay of CHD onset that could otherwise be achieved by preventive efforts. National KP guidelines¹⁵ for management of diabetes now emphasize the importance of giving special attention to CHD risk factors (ie, hypertension, dyslipidemia, and tobacco smoking) in addition to glycemic control. TPMG's care management programs for diabetes therefore place great emphasis on managing CHD risk factors concurrently with achieving glycemic control.

Looking Ahead: The PHASE Initiative

A new TPMG initiative described by the acronym PHASE (Prevent Heart Attacks and Strokes Everyday) was launched in 2004 to further reduce cardiac and cerebrovascular events among women and men at high

risk for CHD. PHASE specifically targets patients with CAD, DM, peripheral arterial disease, stroke, chronic kidney disease, and abdominal aortic aneurysm. For all patients with these atherosclerotic conditions, the PHASE initiative has three primary objectives:

- to ensure that these patients are prescribed the quartet of recommended preventive medications consisting of aspirin, statin drugs, ACE-inhibitors (except for DM patients younger than 55 years), and beta blockers (for patients who have had MI, CAD, angina, ischemia, or peripheral arterial disease);
- to control lipid and glycemic levels and hypertension; and
- to ensure that these patients receive health advice regarding lifestyle change, such as tobacco cessation, engaging in regular physical activity, following a healthful diet, and weight management.

Outcome Measures Show Success

Substantial improvement in lipid and hypertension control for patients with CAD or DM have been achieved at KP during the past two years.¹⁶ Lipid control (LDL levels <100 mg/dL) for the CAD registry population has improved from 51.8% (in 2003) to 61.8% (in 2004) and has improved for the DM registry population from 32.2% (in 2003) to 46.2% (in 2004). Hypertension control for patients with DM (blood pressure <129/79 mmHg) has improved from 22.8% (in 2002) to 34% (in 2003); in 2004, hypertension control for the combined PHASE populations has been measured at 35%. The PHASE initiative aims to accelerate this progress. ❖

Acknowledgments

The authors thank all those listed on the Core Team in Table 1, as well as the many others who deliver excellent patient care or supportive services to our members in Northern California.

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Dreams

Dreams pass into the reality of action.
From the actions stems the dream again;
and this interdependence produces the highest form of living.

— *Anais Nin, 1903-77, French diarist*

Mammography Screening: Addressing Myths and Other Reasons for Noncompliance

By Adrienne D Mims, MD, MPH
John Zetzsche, MS
Kecia A Leatherwood, MS

Abstract

In the Kaiser Permanente (KP) Georgia Region, a program of extensive mailings, call center contacts, and other avenues of patient education has been designed to increase the number of women having mammograms and to decrease the mortality rate from breast cancer. Citing statistics from various studies nationwide and in the Atlanta area, the authors outline some reasons for patient resistance to mammography and describe the resulting development of a "patient fact sheet" and other interventions intended to increase the rate of screening mammograms conducted in our target population of KP members.

Introduction

Breast cancer is the second leading cause of cancer deaths among women in the United States.¹ According to the 2001 United States Cancer Statistics published by the Centers for Disease Control and Prevention (CDC), the nationwide age-adjusted rate of breast cancer is 127.2 cases per 100,000 population for that year.¹ The incidence rate for the same period in Atlanta, GA, was 134.1 cases per 100,000 population.¹ African-Americans in Atlanta had a lower age-adjusted rate: 110.2 cases per 100,000 population.¹

Screening with mammography has been shown to reduce breast cancer mortality by detecting small, nonpalpable regions of breast cancer at an early stage.² According to the 2002 Behavioral Risk Factor Surveillance System (BRFSS) (a survey conducted by the CDC), only 62.9% of age-appropriate females interviewed in Georgia reported receiving

a mammogram in their lifetime—and of these women, 63.5% had this screening examination within the past year.³

The Kaiser Permanente (KP) Georgia Region Program is directed to reach women aged 50 years and older. Inreach and outreach activities are implemented to improve access to mammography services and to increase educational awareness for clinicians as well as for KP members. These interventions are common in many KP Regions and have achieved varying degrees of success. This study addresses barriers to screening in the population who remain unscreened despite exposure to robust inreach and outreach efforts.

Program Background and Components

The KP Georgia Region's Breast Health and Cancer Detection Program was established in 1997 to

address the breast cancer screening rate in women aged 50 and older. Steps were taken to develop a plan that would increase the screening rate by incorporating specific care initiatives implemented annually into the delivery process.

The program consists of distinct member-focused and clinician-focused interventions. The member-focused interventions include display of screening guidelines on clinic walls as a reminder for screening, breast health posters placed in women's restrooms for convenient viewing, and brochures on breast health placed in examination rooms. Articles on breast health are published in the *Partners in Health* member newsletter, and brochures on breast health are mailed annually in May to women aged 50 and older who have not received a screening mammogram since January of the prior year. Every fall, letters containing information about mammography location sites and scheduling instructions are mailed from primary care practitioners to their adult female patients who have not received a screening mammogram since January of the prior year.

In addition, from March to December, outreach phone calls to book appointments are placed by call center nurses to unscreened women aged 52 to 69 years (the population specified in the Health Plan Em-

Screening with mammography has been shown to reduce breast cancer mortality ...



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ployer Data and Information Set, HEDIS) to schedule a mammogram appointment or to document the reason for refusal to schedule a mammogram. A maximum of three telephone attempts are made to each person. If more than one call is needed, additional calls are scheduled one month apart to limit the likelihood of not contacting the woman. After three failed attempts, the patient's name is sent to the health care team for follow-up by letter or by telephone. Most calls are completed by October.

Practitioner interventions implemented so far include articles published in the monthly medical group newsletter to describe breast cancer screening guidelines and the procedure for ordering mammograms. Bright, orange-colored chart flags are affixed to the medical records of women who are overdue for a screening mammogram. This flag alerts health care practitioners to recommend mammography screening during medical visits, when the

practitioner can also discuss reasons why the patient has not had a mammogram. For instance, she may have had a previous "bad" or painful experience. Practitioners also receive inservice lectures about the mammography screening guidelines yearly.

Mammography screening rates for women aged 52 to 69 years old during the first five years of the program reflected measurable progress: From a preprogram screening rate of 73.8% (in 1996), the screening rate rose to 74.5% in its first year (1997) and in three of the four subsequent years, ending in a rate of 82.% for 2001. Intervening rates were 80.6% (in 1998), 84.3% (in 1999), and 83.2% (in 2001).

This observed improvement in mammography screening rates for the period 1996 to 2001 was statistically significant at the 95% level ($p < 0.05$).

Despite all the interventions, however, almost 20% of the patient pool persistently remains unscreened.

Table 1. Breast Cancer Screening Initiative: myths and other reasons explaining why women refused to have a mammogram

Have a pacemaker	Breasts too small
Not interested	Not recommended by PCP
Bad experience	Don't believe in them
Controversy over frequency	Too painful
Fear of finding a lump	

PCP = primary care practitioner

Recently studies have examined factors influencing mammography usage (eg, age, race, ethnicity, socioeconomic status, and practitioner referral), but little is known about the reasons individual patients oppose having a screening examination and how to approach their concerns.^{1,4} This article therefore describes the process used to identify and address these concerns.

Methods for Identifying Barriers to Mammography

The group targeted to receive all of the outreach initiatives initially consisted of all 11,321 women who,

Table 2. Fact sheet: women's explanations for resisting mammography

<p>"Mammograms hurt." To get a good picture of the breast, the breast tissue must be pulled from the chest wall and pressed down for a few seconds. Some women find this to be uncomfortable. To help ease the discomfort, we suggest that you:</p> <ul style="list-style-type: none"> • Take ibuprofen two hours before your appointment. • Cut down or stop eating/drinking caffeine three to five days before the appointment. • Make your appointment for one to two weeks after the first day of your period. <p>"No one in my family has breast cancer." More than 75% of women diagnosed with breast cancer have no family history of this disease. The two biggest risk factors for breast cancer are being a woman and advancing age.</p> <p>"I'm too young/old to get breast cancer." As a woman ages, her chance of getting breast cancer increases. Seventy-five percent of breast cancer diagnoses are made in women over the age of 50.</p> <p>"If I am going to get breast cancer, there is nothing I can do about it." We don't know what causes breast cancer, but we do know that the earlier the breast cancer is found, the more treatment options are available. And the earlier a breast cancer is found, the better the chance of saving the breast and the woman's life. Women with breast cancer diagnosed early have a five-year survival rate greater than 96%. Early detection is important.</p>	<p>"Having too many mammograms can cause breast cancer." The amount of radiation exposure from a mammogram is 0.2 rads—less than received for a dental x-ray film.</p> <p>"I don't have time to get a mammogram." If a family member needed an exam, you probably would ensure that an appointment was made. You are important. Make time to take care of "YOU."</p> <p>"My breasts are too small to get a mammogram." Everyone has a different body shape. The mammography technician is trained to do mammograms on women with different-sized breasts.</p> <p>"I have a pacemaker." Mammograms will not hurt your pacemaker. Just make sure to let the technician know that you have one.</p> <p>"I am confused about how often I should get a mammogram." We recommend:</p> <ul style="list-style-type: none"> • Women aged 40 and older should get a mammogram every one to two years. • Women at high risk* should get a mammogram every year. This practice should begin five years before the age your mother or sister was diagnosed. <p>*High risk: You have a history of breast cancer; or your mother, sister, or daughter has had breast cancer; or someone in your family has the breast cancer gene.</p>
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in the first quarter of 2002, were aged 50 years or older, had been continuously enrolled in the Health Plan for at least the past two years, and had not received screening mammography since January 1, 2001. The outreach initiatives included receiving a mailed brochure

... women underestimated their risk for breast cancer and did not understand that the risk of breast cancer increases with age.⁴

about breast health, having an orange flag placed in their medical record, and receiving telephone contact by a call center nurse. By October of the same year, 3579 (31.6%) of the 11,321 women remained unscreened. These 3579 women thus became the new target population for receiving additional outreach. During a brainstorming session with the Breast Cancer Screening Work Group (BCSWG), we decided to examine why these 3579 unscreened women had not sought the screening examination.

Because the call center nurses documented the responses of the women who declined to schedule the screening examination, we considered these responses as constituting a database of “reasons” for analysis (Table 1). A review of those responses indicated that beliefs or past experience regarding breast health or mammography screening served as barriers to early-detection behavior. These findings prompted the patient

education coordinator, in collaboration with the BCSWG, to develop a fact sheet that would serve as a tool for clarifying false beliefs and emphasizing the benefits of screening mammography (Table 2).

The fact sheet was included with the annual letter mailed to the 3579 women in October 2002—signed by each woman’s primary care practitioner—indicating that a mammogram was needed. The letter also included the KP *Health Line* phone number for scheduling an appointment and a list of locations where mammograms could be obtained.

Results and Discussion

During the period November 11, 2002, through February 9, 2003—when use of the fact sheet was implemented—441 (12.32%) of the 3579 women in the study group had a screening mammogram. Of these 441 women, 107 had not received screening mammography since 1995, and 97 had no record of ever receiving mammogram while enrolled in the KP system (Table 3).

The reasons given by women in our study for not obtaining mammograms echoed those reported in recent literature.⁵⁻⁷ Specifically, women underestimated their risk for breast cancer and did not understand that the risk of breast cancer increases with age.⁴

This feedback was precisely the type that encouraged KP to develop an outreach tool addressing existing myths and other reasons for resisting mammography. We could not determine which of the initiatives, if any, affected the decision of the 441 women to be screened. However, the KP Georgia Region believes that barriers to screening must be continually identified and that approaches must be developed to address those barriers.

In May 2003, therefore, the fact sheet was formatted into a brochure and is now used as an annual reminder for the target group of women to schedule screening mammography for themselves at the recommended intervals. ♦

Acknowledgment

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Table 3. Rate of screening mammography among women screened during the study period

Year	Number (%) of women screened
2000	228 (51.7)
1999	63 (14.3)
1998	23 (5.2)
1997	13 (2.9)
1996	7 (1.6)
pre-1995	10 (2.3)
No record	97 (22)
Total	441 (100)



"Egg Whites"

oil on canvas

20 x 20

By Julie Nunes, RN, MS, CPHRM

More of Ms Nunes' art can be found on page 28.

The Kaiser Permanente Interregional Breast Care Leaders

By Douglas Shearer
Mark Littlewood, MPA, CHE, CPHRM

Breast cancer leads to the most malpractice claims among misdiagnosed conditions.

Introduction

Despite advances in detection and treatment of breast cancer in recent years, this disease remains the leading cause of new cancer cases in women in the United States (an estimated 215,990 (32%) of these cases in 2004) and the second leading cause of cancer deaths in US women (an estimated 40,110 (15%) of these cases).¹

A multidisciplinary team of clinicians from all Kaiser Permanente (KP) Regions, the Interregional Breast Care Leaders (IRBCL; Table 1), is working to improve programwide quality of care for patients with breast cancer and to reduce mortality from this disease among KP members. The IRBCL is led by The Permanente Federation and includes physicians from KP Departments of Primary Care, Surgery, Oncology, Obstetrics and Gynecology, Radiology, Mammography, Genetics, Women's Services, as well as representatives from various KP Regional Breast Cancer Task Force groups, Clinical Nursing, Quality Resource and Risk Management, Public Relations and Issues Management, Health Education, and Prevention Services.

The IRBCL is chaired by Jed Weissberg, MD, Associate Executive Director for Quality and Performance Improvement for The Permanente Federation. Other leading participants include Susan Kutner, MD (Department of Surgery,

KP San Jose Medical Center), who is also Chair of the Breast Cancer Task Force for the KP Northern California Region; and Joanne Schottinger, MD, a medical oncologist who is Assistant to the Associate Medical Director for Quality and Clinical Analysis for the Southern California Permanente Medical Group.

The IRBCL illustrates how the Permanente Medical Groups increasingly work across KP regional boundaries to improve clinical quality and to enhance KP's reputation as a quality leader. "Most Permanente physicians don't understand what The Permanente Federation does," Dr Kutner notes. She continues, "The IRBCL is a perfect example of how a national organization can improve the quality of our services and the quality of our physicians' lives as well." Dr Weissberg agrees, saying, "The IRBCL shows that people can energize and inspire each other around the [KP] Program with their passion for improvement."

How the IRBCL Began

The IRBCL was launched in 2002 with a charter that was originally limited to risk management. This focus arose from the rising number of medical malpractice claims related to delay or failure to diagnose breast cancer. Breast cancer leads to the most malpractice claims among misdiagnosed conditions. In addition, a high percentage of malpractice claims related to breast can-

cer arise from cases in which a common "triad of errors" occurred: typically, young patients with self-diagnosed masses who had negative results of mammograms and then had disease diagnosed at stage II or higher. Typical situations in these cases include alleged misinterpretation of mammograms, failure to recognize potential for development of cancer, failure to refer, and failure to obtain biopsy specimens for evaluation.

However, the IRBCL soon recognized that it had a responsibility to broaden its focus beyond risk management. Given the apparent need for a broader programwide perspective, the IRBCL began to serve as a clearinghouse for regionwide sharing of best practices in breast care. "We have a great deal of expertise [in breast health] in each of our KP Regions and at the medical centers," says Dr Kutner. "The problem was that before the IRBCL, we never had the ability to learn from one another in a consistent manner." Table 2 lists some KP publications that have served as internal, programwide vehicles for sharing information about these practices. Table 3 lists some KP research projects related to improving breast health.

In expanding its scope, the IRBCL also responded to results of the DETECT study—funded by the National Cancer Institute—which set out to evaluate whether late-stage breast cancer occurs in female HMO



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patients because women are not screened, because cancers are not detected when screening occurs, or because follow-up does not occur when an abnormality is found. The conclusions of the DETECT study encouraged the IRBCL to avoid restricting its focus to a single portion of the diagnostic chain and instead to target for improvement KP's entire breast care process, including screening, detection, and treatment.

The Breast Care Management Algorithm

Perhaps the most important accomplishment of the IRBCL to date has been development and publication (in 2003) of an interregional breast cancer diagnosis algorithm. This algorithm outlined the most efficient way to proceed from symptom to resolution and addressed the most common situations confronted by primary care physicians: nipple

discharge, inflammation, and abnormal mammogram results. After much debate, the IRBCL concluded that the available clinical evidence did not support an evidence-based recommendation. Instead, the group developed a consensus-based guideline based on the best available clinical approaches from each KP Region.

The algorithm is accessible on the KP Intranet (Figure 1) and is sup-

Table 1. The Interregional Breast Care Leaders (IRBCL) exemplify the type of multidisciplinary team that can be assembled by a large group practice to design and implement improvement in the quality of clinical care

Kim A Adcock, MD	Associate Medical Director, Business Development and Chief of Radiology, KP Colorado
Bonnie Allen, MD	Physician, Radiology, KP Mid-Atlantic States
Jean K Baggs, MD	Chief of General Surgery, KP Southern California
Bev A Battaglia, CTR	Manager, KP Northwest
Deborah Bevilacqua, RN, JD	Practice Leader, National Risk Management, KP Program Offices
Mark Binstock, MD, MPH	Director, Women's Services, KP Ohio
Allen N Bredt, MD, FACP	Assistant to the Associate Medical Director for Clinical Services, KP Southern California
Diane L Broome, MD	Staff physician, Clinical Geneticist, KP Southern California
Bonnie Campos, C-NP, MS	Senior Director, Women's Health, KP Mid-Atlantic States
Susan A Chen, RN, MSN	Director of Special Projects, KP Southern California
Robin G Cisneros	Director, Technology and Products, The Permanente Federation
David A Cooley, MD	Radiologist, KP Mid-Atlantic States
Sue Jane Fox, RN, MN, MBA, CHES	Prevention Specialist II, KP Colorado
Wayne Gilbert, MD	Surgeon, KP Northwest
Leslie C Griffin, MD	Physician, Radiology, KP Mid-Atlantic States
Cecilia Gue, RN, CNS	RN, CNS Educator, KP Hawaii
Daniel Henshaw, MD	Acting Chief, Diagnostic Imaging, KP Northwest
Julia Herzenberg, MS	Care Management Assistant, KP Program Offices
Diane K Hubler, RT (R)	Assistant Director, Imaging, KP Southern California
Donna Kelsey, RN, BSN	Breast Care Coordinator, KP Hawaii
Karin L Kempe, MD	Physician, Family Practice & Preventive Medicine, KP Colorado
Stefanie Kolpak, MD	Physician, KP Colorado
Susan E Kutner, MD	Physician, Surgery, KP San Jose Medical Center, Chair, Breast Care Task Force, KP Northern California
Mark Littlewood, MPA, CHE, CPHRM	Facilitator, IRBCL; Clinical Risk Management and Patient Safety, The Permanente Federation
Susan Mallone, RN, BS, MPA	Business Process Analyst, KP HealthConnect, KP Ohio
David Mosen, PhD, MPH	Program Evaluation Consultant, KP Program Offices
Julie Nunes, RN, MS, CPHRM	Northern California Regional Director of Risk Management
Ellen M Post, RN BSN	Director, Women's Health Tracking, KP Mid-Atlantic States
Violeta Rabrenovich, MHA	Director, Medical Group Performance Improvement, The Permanente Federation
Paul Schefft, MD	Assistant Medical Director, Surgical Specialties, KP Ohio
Matthew Schiffgens	PR and Issues Management Consultant, KP Program Offices
Joanne E Schottinger, MD	Assistant to Associate Medical Director, Medical Technology, KP Southern California
Hanadi Shamkhani, MD	Physician, Internal Medicine, KP Mid-Atlantic States
Deborah S Shaw, MD	Regional Department Chair, KP Colorado
Robert van der Meer, MD, MBA	Chief of Risk Management, KP Georgia
Jed Weissberg, MD	Associate Executive Director for Quality and Performance Improvement, The Permanente Federation

Perhaps the most important accomplishment of the IRBCL to date has been development and publication (in 2003) of an interregional breast cancer diagnosis algorithm.

Table 2. Previous articles on Breast Care published in <i>The Permanente Journal</i>
<p>“Surgeon Puts His Stamp on Breast Cancer” (Summer 1998) showcased the success of Balazs (Ernie) Bodai, MD, in convincing the US Government to create a breast cancer postage stamp that would fund medical research.</p> <p>“KPNW’s Safety Net for Preventive Services: The Challenge of Reaching the Unscreened” (Fall 1998) described the KP Northwest Region’s success in identifying and removing barriers to mammography screening.</p> <p>“The Breast Health and Cancer Detection Program” (Spring 2000) highlighted a new approach to inreach and outreach that improved mammography screening rates in the KP Georgia Region.</p> <p>“Improving Breast Care at the Kaiser Permanente Bellflower Medical Center” (Fall 2000) focused on the formation of a Radiology Breast Center which reduced the timeframe for diagnosis of breast problems at a KP Southern California Region medical center.</p> <p>“A Breast Cancer Tracking System” (Fall 2000) described the comprehensive electronic system in the KP Northern California Region that will serve as a partial model as Kaiser Permanente moves toward a nationwide tracking system.</p> <p>“Mobile Mammography: Providing Screening to Women Without Access to Centralized Services.” (Fall 2000) showed how use of a mobile mammography van at medical office locations without mammography equipment could reduce barriers to screening for patients with transportation problems.</p> <p>“Initiative to Improve Mammogram Interpretation.” (Spring 2004) described the 2003 Vohs Award winner from the KP Colorado Region.</p>

ern California Permanente Medical Group) recommended a 14-day maximum interval from suspicion to diagnosis, the algorithm work also created understanding of reasonable timelines for completing a clinical examination.

“Despite all the detail in the algorithm,” Dr Weissberg comments, “the bottom line is that every breast complaint must be seen through to completion—either to a final diagnosis or to another resolution. Even for populations such as young women—who have a lower incidence rate of breast cancer—a definitive diagnosis is required because breast cancer is so costly in terms of both personal tragedy and professional liability.”

The algorithm provides suggestions to help primary care practitioners along a care path for evaluating a patient’s breast-related complaint (eg, clinical breast examination, follow-up suggestions for abnormal screening mammogram results, inflammation, breast mass/lump, spontaneous discharge from the nipple, breast pain) to the point where cancer is ruled in or out. To access the algorithm online, direct your Web browser to the KP National Clinical Library (Permanente Knowledge Connection), then click sequentially on *Clinical Guidelines*, *Interregionally Created Guidelines*, and *Breast Cancer*.

Sharing and Disseminating Best Practices for Breast Care

The IRBCL is also working toward programwide dissemination of best practices, such as the KP Colorado mammography interpretation program, to other KP Regions. For example, the KP Program Offices’ Quality Department organized a “transfer session” in Denver, where Kim Adcock, MD, Chief of Radiol-

ported by Web-based education accompanied by pretests and posttests for continuing medical education (CME) credit.

The algorithm also provided a tool for interdepartmental discussion about scope and responsibility for primary care, radiology, and sur-

gery. “Every facility was different in terms of resources, configuration, and approach,” Dr Kutner recalls. “Who do you see first—internist, gynecologist, radiologist, surgeon? What constitutes a thorough evaluation?” Because results of a member survey (conducted by the South-

... every breast complaint must be seen through to completion—either to a final diagnosis or to another resolution.

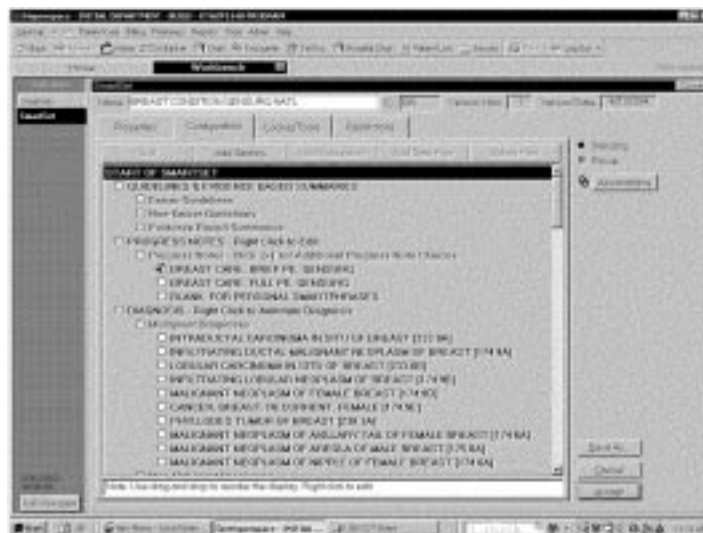


Figure 1. Excerpt (screen capture) from the Kaiser Permanente Breast Care Management Algorithm.

ogy at KP Denver/Boulder, shared best practices with an audience consisting of clinicians from every KP Region. Dr Adcock also visited the KP Northern and Southern California Regions and presented his results to large, enthusiastic audiences there. As a result, variations of the KP Colorado Region's program are being considered for implementation in other KP Regions.

Connecting Breast Care With KP HealthConnect

The IRBCL is now working with KP HealthConnect teams to develop "Smart Sets," or basic building blocks for documentation in KP HealthConnect that encode the Breast Care Management Algorithm into the system and help to translate the algorithm into everyday clinical practice. "Having the algorithm enables us to build the basic template for the complaint in KP HealthConnect and then allow minor Regional customization based on local practice and service agreements," Dr Weissberg says. And

Dr Schottinger adds, "We hope that with KP HealthConnect, the agreed-upon algorithm for breast care will be 'staring you in the face' when you diagnose, treat, and document a breast complaint. For example, the algorithm will include reminders that a negative mammogram following [discovery of] a breast lump shouldn't be completely reassuring—you need to refer [the patient] to a surgeon *now*."

KP is currently building four Smart Sets for breast health management. Smart Sets for two topics—physical examination for females aged 18 to 49 years and management of breast problems—will be documented in the Adult Primary Care domain of KP HealthConnect; a Smart Set for the breast care surgical pathway will be documented in the General Surgery domain; and a Smart Set for a breast-related oncology care plan will be documented in the Hematology/Oncology domain.

"KP HealthConnect will put us head and shoulders above the competi-

tion," Dr Schottinger says. Dr Kutner agrees, saying, "KP HealthConnect will revolutionize the way we provide breast care." Instead of relying on paperwork, all clinicians will be able to use the electronic system to access the same information, including the patient's family history of breast cancer, past diagnoses and treatments, and the next clinician who should see the patient according to the care algorithm.

New Technology Assessment

The IRBCL group also leads assessment of new technology to support breast health and evaluates the evidence for clinical effectiveness of this technology. For example, a large randomized controlled study² recently showed that computer-assisted interpretation of mammograms does not improve rates of cancer detection. These study results suggested that the IRBCL should recommend against investment in computer-assisted mammography interpretation and should do so on the basis of current evidence.

New Quality Measures

To date, the only available outcome measure for evaluating the effectiveness of breast care has been the number of medical malpractice claims related to breast cancer. This number is a difficult measure because as many as four years can elapse from the time an error is alleged to have happened to the time a claim is filed. To respond to the need for early, sensitive measures that can track the impact of changes in a KP Region, the IRBCL is endorsing three process measures related to diagnosing breast problems. These measures could be applied universally across KP Regions regardless of the degree to which a Region has implemented the breast

One of the most important quality measures will be the percentage of patients with cancer diagnosed at stages 0 or I.

Table 3. Objectives and principal investigators of some current Kaiser Permanente research projects related to breast health

Bay Area Breast Cancer and the Environment Research Center Study impact of prenatal-to-adult environmental exposures that may predispose women to breast cancer. A joint effort with UCSF and the Marin Breast Cancer Watch. (Robert Hiatt, MD, PhD; Lawrence Kushi, ScD)
Study of Tamoxifen and Raloxifene (STAR) Compare effectiveness of tamoxifen and raloxifene in reducing incidence of invasive breast cancer and their associated side effects among women at high risk for breast cancer. (Carol P Somkin, PhD; Louis Fehrenbacher, MD)
Women's Health Initiative (WHI): Clinical Center Assess effect of hormone replacement therapy, dietary modification, calcium, and vitamin D supplementation on coronary heart disease, breast and colorectal cancers, osteoporotic fractures, and total mortality. (Bette J Caan, DrPH) ^{3,4}
Women's Health Initiative—Benign Breast Disease Test the hypothesis that adoption of a low-fat dietary pattern is associated with reduced risk of proliferative forms of benign breast disease. (Bette J Caan, DrPH)
Women's Intervention Nutrition Study (WINS): Low-Fat Diet in Localized Breast Cancer—Outcome Trial Assess efficacy of a low-fat diet on survival after treatment of localized breast cancer. (Bette J Caan, DrPH) ⁵
Women's Healthy Eating and Living (WHEL) Trial Evaluate effect of a low-fat, high-fruit, high-vegetable diet on breast cancer survival and recurrence in women with early-stage breast cancer. (Bette J Caan, DrPH) ⁶⁻⁸

care management algorithm—and, ideally, without creating an additional documentation burden for clinicians.

One of the most important quality measures will be the percentage of patients with cancer diagnosed at stages 0 or I. Earlier detection of cancer saves lives and offers women more options for breast conservation. Another key measure will be the number of days from presentation to diagnosis.

The IRBCL is promoting work by KP HealthConnect teams to imbed operational and clinical quality measures into KP HealthConnect functionality.

Conclusion

The IRBCL group believes that interregional collaboration will eventually have a major impact on the quality of women's health care provided by the Permanente Medical Groups over the next few years, particularly with the advent of three key events: the rollout of KP HealthConnect, identification by IRBCL of new clinically effective technologies, and continuation of KP Regions finding more effective strategies for providing preventive medicine to KP's diverse patient population.

The IRBCL group also plans to address the recent decline in Health

Plan Employer Data and Information Set (HEDIS) scores related to breast health and to identify possible causes for this decline (including cultural barriers to mammogram screening). The group's ultimate goal is to share knowledge and best practices across KP Regions.

"I never come off the phone call without hearing an exciting idea from another Region," Dr Schottinger says about the IRBCL meetings. "We do things so differently in our Regions, and there is so much that we can learn from each other." ♦

Acknowledgment

Drs Jed Weissberg, Susan Kutner, and Joanne Schottinger were interviewed by the authors for content.

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The Feminine Perspective

To see our interdependence and interconnectedness is the feminine perspective that has been missing, not only in our scientific thinking and policy-making, but in our aesthetic philosophy as well.

— Reenchantment of Art, *Suzi Gablik, b 1934, art theoretician*

Domestic Violence in the KP Workplace: Letter from a Physician Survivor

By Marta Moreno, MD

Putting this story on paper has been one of the hardest things I have ever done. I'm a doctor in Internal Medicine at a Kaiser Permanente (KP) Northern California facility, where I've been for almost 15 years. My story began with my father, who was an abuser. I put an end to my story of abuse when my husband hurt me in front of my children, although he claims it was inadvertent. I hope to break the cycle.

I stayed in my marriage because of fear and shame: fear of losing my children; shame for allowing the abuse to continue. I stayed in my marriage as long as my children never witnessed the physical abuse. When my husband hurt me in front of them, I called the police. I may never know

how the verbal and emotional abuse will affect my children.

After that breaking point, I spent sleepless weeks filled with anxiety and depression before I went to the doctor at a KP teaching facility. A resident introduced me to an intern, who walked me to someone else's office. After five to ten awkward and uncomfortable minutes, I was handed two to three pages of phone numbers to call if I felt my life was in danger.

Still searching for help, I called the Psychiatry Department. After begging for an appointment, I was scheduled to see the on-call psychologist. In his box-filled office, this psychologist barely listened to or looked at me while he packed. After what seemed like for-

ever, he finally looked at me and said, "Don't worry. You're pretty. You will find someone else soon." I was stunned, and I felt abused all over again.

I finally had the courage, despite the shame, to talk to a coworker, who referred me to the KP Richmond facility. My expectations were low, but I needed help. At the Richmond facility, someone listened. I was given direction as to what I needed to do to help myself, both emotionally and physically. Their concern for my children was also most helpful. I needed to learn that the abuse was not my fault and that there is absolutely no excuse for abusive behavior. Therapy was arranged, and calls were made to my home just to make sure I was okay. Later, when I was emotionally well enough, I attended group sessions, which is an ongoing process to this day.

Shame, fear, and blame keep the abused from seeking help. Looking back, I realize, I needed to know I wasn't alone. I needed guidance on where to go, whom to call, and what to do. I needed more than a list of phone numbers. Without specific direction, many of us feel overwhelmed and go back to our situation. It is extremely hard to seek help; when we do, help should be available.

As a physician, I'm not sure I would have known what to do with a patient in my situation. By sharing my story, I hope that other clinicians will have a better sense of what patients experiencing abuse are going through and what kind of help these patients need. ❖



Silent Witness Display—Domestic Violence is a Workplace Issue

Displayed on several life-sized, panels are the stories of KP staff and clinicians who have experienced domestic violence. This Silent Witness Display shows the courage and survival of these KP employees and describes the resources that were important in helping them break free from domestic violence. The Silent Witness Display was unveiled at the Northern California Regional Offices in January 2004 and has been extremely well received. The Silent Witness Display is currently booked at facilities through 2005; for more information, call the Family Violence Prevention Program (FVPP) at 510-987-4493, or e-mail: brigid.mccaw@kp.org.

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Vision, Research, Innovation and Influence: Early Start's 15-Year Journey from Pilot Project to Regional Program

By Leslie Lieberman, MSW
Cosette Taillac, LCSW, BCD
Nancy Goler, MD

In this way arose the key component of Early Start: making available a licensed substance abuse specialist in the Obstetrics and Gynecology Department for women to see in conjunction with their routine prenatal visits.

Introduction

Early Start¹ is a nationally recognized program designed and implemented in the Kaiser Permanente Northern California (KPNC) Region for early intervention and treatment of substance abuse in pregnant women. Begun in 1990 as a pilot program with Institutional Review Board approval, Early Start is now implemented in more than 90% of KPNC prenatal clinics.

Development of the Early Start Program mirrors earlier, more traditional, and holistic ways of caring for women's health. The pioneers of Early Start faced the difficult task of convincing their colleagues and garnering funding to provide innovative specialty care for a marginalized, stigmatized group of women: those who are at risk for using alcohol, tobacco, and other drugs during pregnancy. The visionaries observed that most pregnant woman who were referred from prenatal care to external substance abuse programs for treatment did not seek services. The innovation of Early Start was that it embraced an approach used by the earliest of medicine women—the “wise women” or shamans—who made themselves directly accessible to women. In this way arose the key component of Early Start: making available a licensed substance abuse specialist in the Obstetrics and Gynecology Department for women to see in conjunction with their routine prenatal visits. This model of accessibility provided a welcoming environment that reduced barriers, fear, and stigma and empowered women through listening, building relationships, and supporting them in their personal wisdom, strength, and self-determination toward reclaiming their own health.

This vision and innovation form only part of the story. The founders of Early Start were required to use influence and advocacy to legitimize their vision and to pro-

cure sufficient funding to study the benefits of this unique model. The founders were met with many challenges, opposition, and predictions of failure. Fifteen years later, the program serves more than 25,000 women each year and exists in almost every prenatal clinic in KPNC.

As in the traditional “medicine wheel” of many native cultures, four strong elements have worked together in a fluid circle of reciprocity to bring the Early Start program to its full maturity: vision, innovation, influence, and research. The Early Start journey is a microcosm of the journey taken by women to reclaim their health choices and to fulfill their long-standing desire to receive balanced, personalized, evidenced-based care from practitioners who understand women's unique needs.

The Early Years, 1989–1993: A Vision of Preventing Problems

In the late 1980s, frustrated by the large number of babies affected by prenatal substance abuse, two pediatric clinicians, Marc Usatin, MD, and Anne Boddum, NP, envisioned a system that would prevent or reduce

Sidebar 1. 1989-1990 Meconium Study

Faced with disbelief that a drug abuse problem existed among pregnant KP members, Marc Usatin, MD, Neonatologist, Walnut Creek Medical Center, garnered funds to conduct a KP Region-wide prevalence study of prenatal exposure to illicit drugs. The unpublished study involved testing the meconium of all babies born at >34 weeks' gestation in 1989-90. Facility rates ranged from 1.3% to 4.5% of all newborns who tested positive for an illegal drug; the overall KPNC Regional rate was 3.2%.

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Cosette Taillac, LCSW, BCD, (right) is the Regional Co-Director for Early Start, a Northern California KP Program serving pregnant women at-risk for substance use and abuse in pregnancy. She has over 18 years of clinical experience specializing in substance abuse treatment and work with children, adolescents and their families. E-mail: cosette.taillac@kp.org.

Nancy Goler, MD, (not pictured) Regional Medical Director, Early Start, Associate Chief, Obstetrics and Gynecology Department, KP Fremont Medical Center. E-mail: nancy.goler@kp.org.



neonatal risk of prenatal drug exposure. Ms Boddum received Garfield Grant Foundation funding for her innovative idea to pilot and study the outcomes of a new program, Early Start. Early Start would provide substance abuse treatment to pregnant women by stationing a licensed therapist with substance abuse expertise (the Early Start Specialist) in the prenatal clinic and by integrating standardized risk screening and counseling visits with routine prenatal care.

In 1993, armed with three sets of data—results from the KPNC meconium study (see Sidebar 1 for details), outcomes from the Early Start pilot project (see Sidebar 2 for details),² and a complementary study of alcohol and drug prevalence in California which included KP hospitals³—Dr Usatin (a TPMG Board member) successfully lobbied his colleagues to expand the Early Start Program to three additional KPNC medical centers and collaborated with the Kaiser Foundation Health Plan (KFHP) to hire a Regional Coordinator, Leslie Lieberman, MSW, to implement the expansion.

Sidebar 2. Pilot Study at Oakland Medical Center

The Early Start pilot found that most women (93%) diagnosed with substance abuse or chemical dependence agreed to receive follow-up care with the on-site substance abuse specialist. In addition, 69% of women who participated in the pilot stopped using alcohol and drugs by 32 weeks' gestational age, and their babies had substantially lower rates of prematurity, low birth weight, microcephaly, and being small for gestational age. The babies also had fewer neonatal intensive care unit days and lower hospital costs.²

The Middle Years, 1994–2000: A Regional Team and Locally Supported Partnerships

After the initial phase of the expansion, several key factors enabled Early Start to continue its growth in Northern California. By 1994, a KPNC multidisciplinary Early Start Team was in place and included the Regional Director, Champion, and representatives from the Perinatology, Chemical Dependency, and Nursing Departments. This group created a new vision: to make Early Start a regional program available to all pregnant KPNC members. To continue to demonstrate the program's positive impact on outcomes and costs, the group joined forces with the KP Regional Preterm Birth Prevention Program to build a database that could capture data about Early Start participants. Next, an alliance

Sidebar 3. Perinatal Outcomes Study

This study examined records of 6774 KP members who had completed the Early Start (ES) screening questionnaire and delivered babies between 7/95 and 6/98. Four groups were compared: 1) women who were assessed and followed by ES (n = 782), 2) women who were assessed but not followed by ES (n = 348), 3) women who screened positive but received no ES assessment or follow-up (n = 262), and 4) controls who screened negative (n = 5382). Infants of women in group 1 had assisted ventilation rates (1.5%) similar to those of control infants (1.4%) but lower than group 2 (4.0%; p = 0.01) and group 3 (3.1%; p = 0.12). Similar patterns were found for low birthweight and preterm delivery.⁴

was built with the KPNC Division of Research to enable linkage with other internal data sources that would provide information about birth outcomes. In 1999, the Program received funding from the Kaiser Foundation Research Institute (KFRI) to analyze a data set of records extending from July 1995 through June 1998. This published study⁴ showed that babies born to substance-abusing women who received Early Start services had better birth outcomes than their counterparts who did not receive Early Start services (see Sidebar 3).

In addition to the vision and research of the middle phase, individual and collective influence played a role in the program's growth between 1994 and 2000. The regional program team received impassioned calls from clinicians who wanted Early Start for their facilities. On their own, these clinicians collected local data, lobbied their facility administrators and colleagues, and scraped together funding to initiate the program when no more regional funds were available. By 2000, Early Start was available at 16 of KPNC's 32 prenatal care sites, yet the funding still came from disparate sources, and the program lacked regional consistency.

The Late Years, 2000–2004: A Vision Accomplished

As the Early Start program passed into its second decade, it won awards from two national organizations for its innovative, effective, evidence-based model (see Sidebar 4), yet work remained to be done to create a regionwide program. Once again, vision, research, innovation, and influence played a role. Several processes worked together synergistically to make this vision a reality.

**Early Start
would provide
substance
abuse
treatment to
pregnant
women by
stationing a
licensed
therapist with
substance
abuse expertise
(the Early Start
Specialist) in
the prenatal
clinic ...**

Early Start's 15-year history is clearly a tapestry in which vision, innovation, influence, and research have been woven together to create a whole program.

Sidebar 4. Awards

In 2000, Early Start was the first recipient of the annual "Models of Excellence in High Risk Care" from The American Medical Group Association and Pfizer, Inc. In 2003, the Program won the Silver Hera Award, which recognizes improvement in women's and children's health outcomes, from the American Association of Health Plans and Wyeth Pharmaceuticals.

In 2001, the regional program team completed a business case which included a cost-benefit analysis of the KFRI research study. The analysis showed that at minimum, Early Start provided a 30% return on investment. Armed with this information, Ruth Shaber, MD, the newly appointed KP Regional Women's Health Leader, endorsed Early Start as one of four women's health programs that should be available throughout KPNC. To get this message out, Dr Shaber conducted multidisciplinary site visits throughout KPNC and strongly encouraged every facility to implement the program. Although this attempt was successful at a handful of facilities, some locations remained unable to commit local funds for Early Start. Meanwhile, the team added clinical excellence and consistency of service delivery to the vision of regionwide access. Toward this goal, Cosette Taillac, LCSW, joined the regional leadership team as the Clinical Coordinator. During that same time, a new Web-based database and electronic charting system, POINT, were developed (Sidebar 5), thus creating more regionwide consistency.

In 2003, several steps led to full regional implementation of Early Start. For the first time, an obstetrician, Nancy Goler, MD, became the KP Regional Medical Director, and the program came under the executive spon-

Sidebar 5. Point Early Start

In 2003, the Early Start Program launched POINT EARLY START, a secure, confidential Intranet system that enables authorized users to enter and access screening, assessment, follow-up, and laboratory data on all Early Start patients and to produce productivity and case management reports. With the click of the mouse, a facility can determine what percentage of women who screen positive on the Early Start Questionnaire have been assessed. This information has empowered the local Early Start teams by giving them the data they need to both identify and solve systems issues.

sorship of perinatologist Donald Dyson, MD. Together, Drs Dyson and Goler garnered support from their colleagues and presented the compelling business case to KFHP leaders, who agreed, in a historic decision, to fund Early Start as a KP Regional Program.

Conclusion

As 2004 closes, Early Start's 15-year history is clearly a tapestry in which vision, innovation, influence, and research have been woven together to create a whole program. As we look forward, we know that these four elements will continue to help ensure that women have access to all the health care services they need. The transferability of Early Start's innovations are being explored by other KP Regions and have already been adapted by some public-sector programs. Using our POINT database, we routinely produce productivity and quality reports that enable individual sites to improve their efficiency and ultimately to increase access to care for our members. We continue to sponsor trainings for our local team members so that they can effectively implement new sites and increase the consistency of clinical interventions and systems integration at existing sites. As established Early Start sites persevere and flourish and as neighboring KP Regions start planting seeds of their own, the vision of Early Start will continue to grow to meet the needs of women throughout our organization and around the nation. ❖

Acknowledgments

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Family Violence Prevention Program: Another Way to Save a Life

By Brigid McCaw, MD, MS, MPH, FACP
Krista Kotz, PhD, MPH

Domestic violence, now often referred to as intimate partner violence, is a common, costly, complex health problem. An estimated 5% to 14% of US women are currently living in abusive situations, and 22% report assault by a domestic partner during their lifetime.¹ But addressing domestic violence in the health care setting is very complex—disclosure, seeking services, and recovery are all challenging.² Despite recommendations from most professional organizations³ and clinical practice guidelines, screening for domestic violence in the health care setting remains infrequent.⁴

To address the complexities of domestic violence for patients as well as for health care providers, an innovative systems-model approach was developed and tested at a Kaiser Permanente Northern California (KPNC) facility in Richmond, California⁵ and is currently being implemented at all facilities in the KPNC Region.

Description of Program

The systems model approach consists of four interrelated components: 1) a supportive environment, 2) screening and referral, 3) on-site domestic violence services, and 4) links with the community (Figure 1).

A supportive environment is established by using the physical environment of the facility to inform Health Plan members that domes-

tic violence is an important issue and to encourage members to discuss domestic violence with their health care practitioner. Materials developed to convey this message include, among other items, a poster displaying a message of hope, a patient brochure, and resource information sheets designed to be posted in examination rooms and in restrooms (sometimes the only place where a victim has privacy).

Routine screening for domestic violence and referral to appropriate services are provided by clinicians during clinical encounters.

During departmental meetings, focused staff training emphasizes simple, direct questions and is supplemented by referral-related feedback to clinicians and materials to facilitate their work (eg, toolkits, examination room posters, member information materials, and pocket reference cards outlining clinical practice guidelines).

Referral to on-site domestic violence services was designed to be simple and familiar and to ensure easy access to a mental health clinician and to information about domestic violence hotline numbers.

... screening for domestic violence in the health care setting remains infrequent.⁴

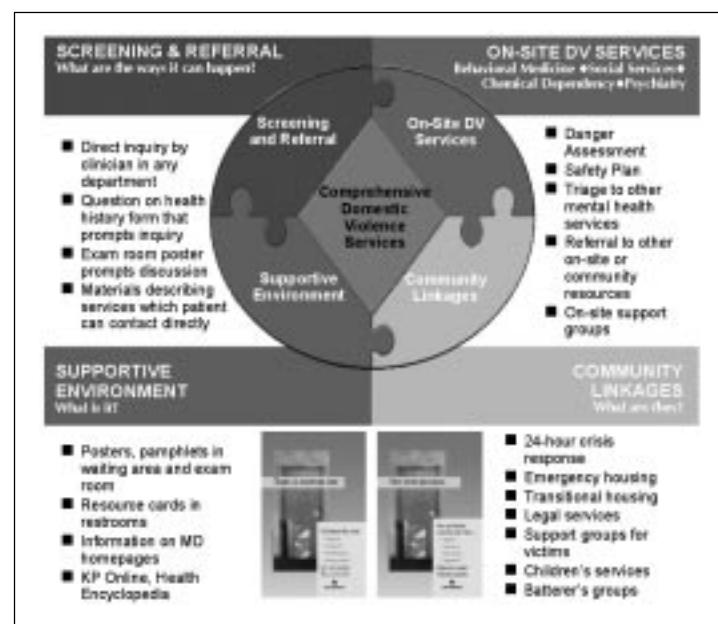


Figure 1. Overview of systems-model approach used in a health care setting to diagnose and prevent domestic violence.

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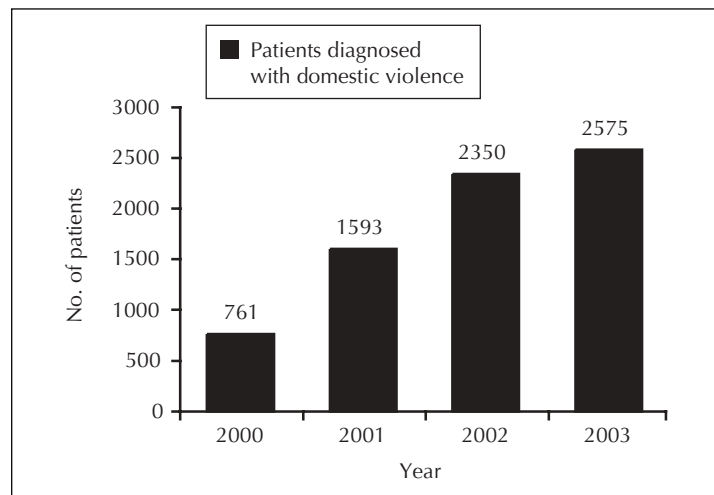


Figure 2. Graph shows annual number of KP members in the Northern California Region diagnosed with domestic violence. As KP facilities in the Northern California Region implement the model, domestic violence is being diagnosed more frequently.

Mental health clinicians (eg, LCSW, PhD, MFCC) receive training in domestic violence assessment and intervention and provide victims with a danger assessment, safety planning, information about resources in the community, and (in some facilities) an on-site support group.

Linkages to community agencies improve access to necessary services, such as a 24-hour crisis line, emergency housing, and legal assistance. In some communities, a crisis response team from the local advocacy agency is available to provide immediate assistance at the KP facility.

Pilot Project

A yearlong pilot project was conducted in 1998 at a KP facility caring for 71,000 members (19,000 women aged 20-60 years) in Richmond, California.

The number of members identified and referred to mental health services for domestic violence increased 260%, from 51 referrals (during the preimplementation year) to 134 (during the first postimplementation year). Referrals increased across all departments, including medicine, obstetrics/gynecology, psychiatry, and emergency. A substantial num-

ber (18) were self-referrals. (Referrals have also continued to increase in each subsequent year.)⁶

A telephone survey adapted from a survey used in the KP Northwest Region⁷ was administered to a random sample of women Health Plan members seen for a regular checkup, either before implementation of the program ($n = 190$) or after its implementation ($n = 201$). Results of this survey showed statistically significant improvement in patient recall of being asked about domestic violence ($p < 0.0001$); improved patient awareness of domestic violence prevention information available at the KP facility ($p < 0.0001$); and satisfaction with KP efforts regarding domestic violence ($p < 0.0001$).⁸

On the basis of greatly improved screening and referral for domestic violence, the KPNC Family Violence Prevention Program was chosen as the gold winner of the American Association of Health Plans/Wyeth HERA award for 2003. This award is presented each year to health plans for exemplary programs that advance quality in women's and children's health.⁹ The KPNC Family Violence Prevention Program was also highlighted in a 2002 Institute of Medicine report as one of three health care institutions that successfully used systems change models for preventing intimate-partner violence.¹⁰

A Program That Works

The Family Violence Prevention Program has helped KP to realize its mission to "improve the health of our members and the communities we serve" by developing strong ties to the community.

Examples of this community outreach:

- Adoption of "There is another way ..." poster in multiple communities throughout the United States.
- Outreach to schools: "P.E.A.C.E. Signs" is performed by the KPNC Educational Theater Program at middle schools throughout Northern California.
- Improvement of law enforcement response through collaborative training (Vallejo (CA) Police Department, 2002-2003).
- Provision of resource information to members and the community via KPNC's Domestic Violence Web site: <http://xnet.kp.org/domesticviolence/>.

Expansion to all KPNC Facilities

Because of the success of the pilot program, the coordinated "systems-model" approach to family violence prevention is now being implemented at all KPNC facilities. To facilitate dissemination of the program throughout the region, resources were allocated for a clinical lead (a part-time physician), project manager, and assistant. This

KP Family Violence Prevention Program provides assistance to local facility teams through regional workshops, site visits, phone consultation, a newsletter, and other resource materials (online and paper). To support implementation at the KP Regional level, the team also works on activities such as call center protocols, quality improvement measures, regulatory and compliance issues, and, more recently, KP HealthConnect. Online domestic violence materials for clinicians are available on the Clinical Library Web site (<http://clinical-library.ca.kp.org>) and, for Health Plan members, on the Health Encyclopedia Web site (<http://members.kaiserpermanente.org/kpweb/healthency/entrypage.do>).

In 2002, "Improving Domestic Violence Prevention" was selected by the KPNC Department of Quality and Utilization in collaboration with the KPNC Behavioral Health Quality Improvement Committee as a way of demonstrating implementation of a behavioral health guideline, a National Committee for Quality Assurance (NCQA) standard. All three baseline requirements—an interdepartmental referral protocol, an MD/ NP champion, and a multidisciplinary domestic violence prevention implementation team—have been met throughout the region. As a next step, the team developed two performance measures—percentage of target population identified and percentage of target population receiving appropriate referral. These measures are similar to those used to track improvement in conditions such as depression and are being used to monitor performance over time and between facilities.¹¹

Analysis of Expansion

During the past four years, active dissemination of the domestic violence prevention program has been

underway in KPNC, where data from an outpatient diagnosis database has shown a threefold increase in Health Plan members (both men and women) identified as currently affected by domestic violence (Figure 2). A notable trend is that identification is shifting to less acute settings, such as primary care (Figure 3): This trend suggests that these members are being identified before they present to the Emergency Department with a physical injury.

Although identification is improving dramatically, a substantial gap remains. Using a conservative prevalence rate of 4% for domestic violence in the previous 12 months,¹²⁻¹⁴ approximately 46,000 women members aged 18-60 years are currently affected by domestic violence. The data show that only about one in ten of these KPNC women members are identified and offered appropriate services. The opportunity for improvement is clear.

KP is the first health plan to tackle

this cross-cutting issue and to show substantial results from doing so.¹⁵ And KP is in a position to provide a model of excellence because of the sophisticated infrastructure, automated databases, and clinical training that underlie KP's integrated system of care. Improvement can be guided by providing meaningful performance data, an evidence-supported model of care, and implementation tools that support local teams. This robust combination allows successful adoption of the KPNC approach to domestic violence prevention throughout KP. ❖

Acknowledgments

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Identification of domestic violence is shifting to less acute settings, such as Primary Care.

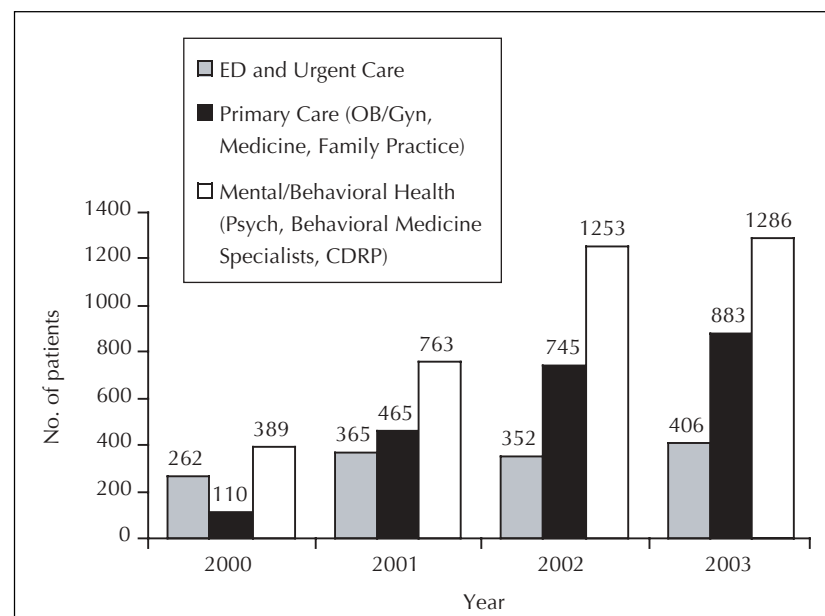


Figure 3. Graph shows annual number of KP members in the Northern California Region diagnosed with domestic violence by department. Identification of domestic violence is shifting to less acute settings, such as Primary Care.

Family Violence Prevention Program; Division of Research Enid Hunkeler, MA, and Nancy Gordon, PhD, for expertise in evaluation; and Kaiser Permanente Northwest (KPNW) Robert S Thompson, MD; Group Health Cooperative and Virginia Feldman, MD, for their guidance and encouragement.

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Solution

You can never solve a problem on the level on which it was created.

— Albert Einstein, 1879-1955, Nobel Laureate, physicist

Preventing Unintended Pregnancy: Eight Years of Effort at KP San Diego

By Charles I Jones, MD
Wansu Chen, MS
Karen S Mulligan, RNC, CPHQ

Introduction

Of our Kaiser Permanente (KP) San Diego members, 1391 had pregnancy termination in 2003. In addition, about 1700 (32%) of births to mothers who were KP members in San Diego in 2003 were the results of mistimed or unwanted pregnancies. Couples have difficulty consistently using effective contraception, and a busy health maintenance organization is challenged by the need to consistently provide excellent contraceptive education, counseling, and services to a very large at-risk population. Highly effective contraceptive methods are available, and providers of contraceptive care, together with their patients, have the tools available to dramatically reduce unintended pregnancy.

Formation and Activities of a Multidisciplinary Task Force

In the past eight years, KP in the San Diego area has focused on this problem in adults and teens through use of a task force (sponsored by the Quality Resource Management Department) for prevention of unintended pregnancy. Membership in the task force includes a physician, midlevel practitioner, and nurse supervisor from each of three departments: primary care, pediatrics, and obstetrics/gynecology. The Member Health Education, Social Service, Pharmacy, Quality Resource Management, and Health Appraisal departments also are represented. Since 1996, the group has met quarterly with two goals: to identify areas for improvement and to implement changes designed to improve contraceptive services.

The frequency of unintended pregnancy has been monitored by evaluating abortion rates. More recently—since 1999—unintended births also have been monitored through responses to the prenatal questionnaire. Since 1996, a goal of the task force has been to decrease the abortion rate by 5% per year. In 1999, the

task force goal added the goal of decreasing unintended births by 5% per year.

In the past eight years, the task force has identified many areas for improvement. These problem areas have been addressed either through education or by improving contraceptive services. A few important examples are described here.

Contraceptive education has been a major focus: The task force has used medical office chart reviews to identify and highlight opportunities for improving contraceptive care and to educate providers and staff. The first chart review (in 1996) evaluated inreach opportunities. The medical office charts of women who had had an abortion were reviewed. Ninety-three percent of these women had a medical office visit in the obstetrics/gynecology, primary care, or pediatrics department in the year preceding the abortion. However, contraception was noted in less than 50% of these visits.

These findings were shared with all involved provider groups. Another observation was that abortion was likely to be repetitive. A third of the patients were having their first abortion as KP members. A third were having their second abortion, and a third were having their third through eighth pregnancy termination. With this information—that two thirds of abortions were done in women who had already had an abortion—a new standard was established: All patients who receive a referral for an outside contracted abortion also receive a follow-up appointment for contraceptive counseling with a midlevel practitioner in the obstetrics/gynecology department. A substantial decline in repeat abortion has been noted since this program was instituted.

The Emergency Contraception Demonstration Project

An emergency contraception demonstration project was undertaken in the San Diego area in 1997.¹ This

... providers of contraceptive care, together with their patients, have the tools available to dramatically reduce unintended pregnancy.

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Table 1. Rates of abortion and live birth among women at risk aged 14-44 years in the KP San Diego Medical Service Area

Year	Number of women at risk	Abortions		Live births	
		Total number ^a	Number per 1000 women	Total number ^b	Number per 1000 women
1994	88,802	1772	20.0	4688	52.8
1995	87,007	1673	19.2	4297	49.4
1996	92,248	1603	17.4	4682	50.8
1997	103,734	1584	15.3	5533	53.3
1998	115,806	1665	14.4	5830	50.3
1999	115,478	1680	14.5	6092	52.8
2000	112,896	1617	14.3	5915	52.4
2001	111,645	1585	14.2	5494	49.2
2002	110,826	1477	13.3	5298	47.8
2003	109,805	1391	12.7	5251	47.8

^a Includes self-pay federal employees.

^b Includes 904 live births at Palomar in 1999, 880 live births in 2000, 810 live births in 2001, 799 live births in 2002, and 780 live births in 2003. These births are not in Perinatal Services System (PSS).

Table 2. Rates of abortion and live birth among women at risk aged 14-44 years in other KP Medical Service Areas

Year	Number of women at risk	Abortions		Live births	
		Total number ^a	Number per 1000 women	Total number ^b	Number per 1000 women
1994	441,529	11,269	25.5	24,693	55.9
1995	432,466	10,913	25.2	23,663	54.7
1996	455,152	10,614	23.3	24,304	53.4
1997	500,050	11,185	22.4	27,157	54.3
1998	556,011	11,003	19.8	29,580	53.2
1999	557,760	10,383	18.6	30,008	53.8
2000	559,480	10,009	17.9	30,650	54.8
2001	573,486	10,245	17.9	29,547	51.5
2002	593,718	9824	16.5	29,771	50.1
2003	594,195	9102	15.3	29,635	49.9

^a Does not include self-pay federal employees. Does not include abortions that occurred in expansion areas.

^b Includes births at Bakersfield between 1994 and 2003. These births were not in PSS except those marked below.

- 1994: 923
- 1995: 840
- 1996: 935
- 1997: 1086 (all in PSS)
- 1998: 1336 (all in PSS)
- 1999: 1399 (256 births in PSS)
- 2000: 1275
- 2001: 1235
- 2002: 1272
- 2003: 1160

Other non-SD contracting hospitals (not in PSS):

- 2000: 712 live births at Antelope Valley Hospital; 652 live births at Irvine Medical Center
 - 2001: 759 live births at Antelope Valley Hospital; 607 live births at Irvine Medical Center
 - 2002: 825 live births at Antelope Valley Hospital; 711 live births at Irvine Medical Center
 - 2003: 903 live births at Antelope Valley Hospital; 788 live births at Irvine Medical Center
- Pre-2000 numbers of live births are not available.

project was a joint undertaking of the KP Southern California Region and the Pacific Institute, a not-for-profit organization whose mission is to advance women's health. The project was funded by a consortium of external foundations. Project participants at KP included Diana Petitti, MD, MPH; David Preskill, MD; Debbie Postlethwaite, RNP, MPH; and Howard Switzkey. Project participants at the Pacific Health Institute were Marie Harvey, MD; and Linda Beckman, MD. The project paid for Ms Postlethwaite to work full-time in San Diego on developing a structured program of education and training for personnel in the primary care and obstetrics/gynecology departments. The project established protocols to make emergency contraception readily available to our Health Plan members. The broadening of contraceptive services has resulted in fewer unintended pregnancies. Information on abortion rates at KP San Diego and in the rest of the KP Southern California Region that are included in this article were first calculated as part of the project.

Women at risk for unintended pregnancy frequently present asking for a pregnancy test. When appropriate, contraceptive counseling at the time of pregnancy testing has great value. The San Diego program has followed the lead of Richard Boise, MD, and Ximena Borquez, MD, from KP Antioch, who have popularized this counseling in the KP Northern California Region.²

Recent Improvement of Member Contraceptive Benefit

The Kaiser Foundation Health Plan in California recently improved the contraceptive benefit to KP members by making available injectable and implantable contraception, IUDs, and emergency contraceptives for all members without including a pharmacy copay. This benefit change took effect in January 2002 and was expected to substantially reduce the number of unintended pregnancies by ensuring that several highly effective contraceptive methods became more readily available. This contraceptive benefit is probably a major contributor to the rapid decline in the rate of abortions reported throughout the entire KP Southern California Region in 2002 and 2003.

In response to this Health Plan benefit change, a current focus of the San Diego task force is to evaluate our experience with IUDs and to promote their appropriate use. The IUD is a highly effective, reversible contraceptive method which is underused in the United States. Increasing appropriate use of IUDs would substantially decrease the number of unintended pregnancies.

Conclusion

These projects are a few of the many important activities the task force has been involved in during the past eight years. Contraceptive services have improved, and rates of unintended pregnancy have decreased. The initial goal (set in 1996) was to decrease the rate of abortion by 5% per year, and averaged results for the past eight years show that this goal has been met (Tables 1,2). A decrease in the rate of unintended births recorded at KP San Diego—from 40% (in 1999) to 30% (in 2004)—has also been observed. Thus, the second goal, added in 1999, to decrease the rate of unintended births by 5% per year—also has been met. For comparison, the abortion rate nationally for women aged 15 to 44 years decreased from 21 abortions per 1000 women (in 1996)³ to 16 per 1000 women (in 2001, the most recent year for which data are available).³

Unintended pregnancy affects many of our members

and their families. Persistent, focused attention to this problem has been associated with a large decrease in the number of unintended births and abortions. ❖

Acknowledgments

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**This
contraceptive
benefit is
probably a
major
contributor
to the rapid
decline in
the rate of
abortions ...**

Pictures and Words

Things don't fall apart.

Things hold.

Lines connect in thin ways that last and
last and lives become generations made out of
pictures and words just kept.

— Lucille Clifton, b 1936, Poet Laureate for the State of Maryland



"Canine Cake Walk"

acrylic on canvas

By Marsha Balian, NP

Ms Balian is a Nurse Practitioner in the Ob/Gyn Department
at the Oakland Medical Center in California.
More of Ms Balian's art can be found on the cover and page 35.

Fighting Breast Cancer: A Call for a New Paradigm

By Mark Binstock, MD, MPH

Breast cancer is more common than all types of cancer except skin cancer.¹ Breast cancer is also the second leading cause of cancer death in women¹ and is the leading cause of all death among women aged 40-59 years.² The lifetime risk of a woman being diagnosed with breast cancer is 14.2%.³ The mortality rate for breast cancer—26 per 100,000 women—has remained essentially unchanged over the past 60 years.³

At present, efforts to control breast cancer are focused on mammography—a procedure that has proved effective at reducing mortality from breast cancer among women aged 50 to 75 years^{4,5} but does not reduce the incidence of breast cancer. Mammography also does little, if anything, to reduce the risk of mortality from breast cancer in women aged under 50 years or over 75 years.^{4,5} To control breast cancer more effectively, we must move beyond mammography and focus on strategies that will reduce the incidence of breast cancer as well as the mortality rate from the disease. We need to add breast cancer risk assessment to our conventional triad of mammography, Clinical Breast Exam (CBE) and Breast Self Exam (SBE). Fortunately, such breast cancer risk tools are available and validated although not widely used in clinical practice.

Tools for Assessing Risk for Breast Cancer

The Gail Model⁶ is a risk assessment tool that combines seven risk factors (age, number of first degree female relatives with a history of breast cancer, age at first live birth, number of prior breast biopsies, history of biopsy-proven atypical hyperplasia, age at menarche and race) to calculate five-year and lifetime risk for breast cancer. A simple way to calculate a Gail score for a given patient is via the Web site: www.breastcancerprevention.com.⁷

A handheld calculator also is available for this purpose and is distributed free of charge by Astra Zeneca (1-800-236-9933-1-3).

Chemoprevention

Calculating a Gail score for an individual woman helps the clinician to determine whether chemoprevention of breast cancer is an appropriate approach. The landmark PCBT trial of the National Surgical Adjunctive Breast Prevention Consortium (P1) showed that chemoprevention of breast cancer can be effective.⁸ This randomized, double-blind study examined tamoxifen vs placebo among 13,388 participants who were at increased risk for breast cancer as defined by a Gail score >1.66. Study participants who received tamoxifen had 49% fewer cases of invasive breast cancer (89 cases) than did women who received placebo (175 cases) ($p = 0.00001$).⁸

Another important finding was that chemopreventive use of tamoxifen was associated with certain risks.⁸ In particular, more cases of endometrial cancer were seen in tamoxifen users (36 cases) than in placebo users (15 cases), and this pattern was observed for stroke (38 cases vs 24 cases), pulmonary embolism (18 cases vs 6 cases), and deep vein thrombosis (35 cases vs 22 cases).⁸ The risk of complications from tamoxifen use is a function of age, hysterectomy status, and race.⁸ So, although tamoxifen will reduce the risk of breast cancer in all women at higher risk for breast cancer (Gail score >1.66), tamoxifen is not an appropriate choice for all such women: Some will have an unfavorable benefit-to-risk ratio. Unfortunately, deciding which women will benefit from primary prevention with tamoxifen is not intuitive and depends not

only on the Gail score value but on a woman's race, age, and hysterectomy status.

Fortunately, existing mathematical models can be used to ascertain which women and at what Gail score net benefit over harm will be obtained after race, age, and hysterectomy status are known.⁹ For example, a white woman aged 45 years with an intact uterus and whose Gail score is ≥ 1.5 would receive a net benefit from tamoxifen; but if her Gail score was <1.5, her risk of harm would be greater than her benefit. On the other hand, an African-American woman aged 45 years with an intact uterus would need a Gail score of 2.5 or more to receive a net benefit from tamoxifen. In general, compared with non-Hispanic white women, African-American women need a higher Gail score at the same age and hysterectomy status to receive a net benefit from tamoxifen (Table 1).⁹

The risk of complications from tamoxifen use is a function of age, hysterectomy status, and race.⁸

Special High-Risk Groups

Women with a history of lobular carcinoma in situ (LCIS) or ductal carcinoma in situ (DCIS) who have not had bilateral mastectomy are at especially high risk for breast cancer (five-year risk between 6.5% and 14.7%) and therefore present a special situation. Women with this diagnosis who are between 35 and 59 years of age who have not had a hysterectomy can receive a net benefit from chemoprophylaxis with tamoxifen. Non-Hispanic white women between 35 and 79 years of age (and African-American women between 35 and 59 years of age) who have had a hysterectomy also receive a net benefit from this chemoprophylaxis.

In a similar manner, women with a remote history of breast cancer who have not yet

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Table 1. Net benefit^a of Tamoxifen chemoprevention in non-Hispanic white and African-American women at high risk for breast cancer

	Age	Hysterectomy	Gail score
Non-Hispanic white women	35-49	No	≥1.5
	50-59	No	≥4.0
	35-59	Yes	≥1.5
	60-69	Yes	≥3.5
African-American women	35-39	No	≥1.5
	40-49	No	≥2.5
	50-59	No	≥6.5
	35-39	Yes	≥1.5
	40-49	Yes	≥2.0
	50-59	Yes	≥5.5

^a Defined by Gail score.

Adapted and reproduced by permission of the publisher and author from: Gail MH, Costantino JP, Bryant J, et al. Weighing the risks and benefits of tamoxifen treatment for preventing breast cancer. *J Natl Cancer Inst* 1999 Nov 3;91(21):1829-46. Erratum in: *J Natl Cancer Inst* 2000 Feb 2;92(3):275.⁹

undergone a five-year course of tamoxifen chemotherapy also are at high risk for breast cancer (five-year risk 3.4%) and may be appropriate candidates for chemoprophylaxis with tamoxifen. In particular, non-Hispanic white women aged between 35 and 69 years (and African-American women aged between 35 and 49 years) who have had a hysterectomy receive a net benefit from this chemoprophylaxis as do women aged between 35 and 49 years who have not had a hysterectomy.⁹

Evidence-Based Chemoprevention Strategies

Evidence-based guidelines exist supporting the role of chemoprevention of breast cancer. For example, the United States Prevention Services Task Force developed a guideline¹⁰ in response to the P1 trial listed above calling for consideration of chemoprevention in high-risk women. Tamoxifen chemoprevention consists of tamoxifen 20 mg orally once daily for five years. In a similar manner, the American College of Obstetricians and Gynecologists and the American Society of Clinical Oncology have embraced breast cancer chemoprevention.¹¹ The US Food and Drug Administration (FDA) has approved tamoxifen for this indication.¹²

Because the side effects of tamoxifen are most serious in women older than 50 years, it is best used in women younger than 50 years who are at high risk for breast cancer.

Given the serious side effects of tamoxifen, research is being focused on other chemoprophylactic agents (eg, raloxifene) that may have a better risk-benefit ratio. One finding from the MORE Trial¹³ (an osteoporosis treatment clinical trial) was a 76% reduction in the incidence of newly diagnosed invasive breast cancer with no increased risk for endometrial cancer. For raloxifene, risks of deep vein thrombosis and pulmonary embolus are similar to the risk observed for either tamoxifen or estrogen replacement therapy.

New and Future Chemoprevention

On the basis of results of the MORE Trial, the NSABP initiated the STAR Trial (Study of Tamoxifen and Raloxifene)¹⁴ for primary prevention of breast cancer. The purpose of the study was to determine whether raloxifene is at least as effective as tamoxifen for preventing breast cancer and with fewer side effects and less toxicity. Recruitment for the STAR Trial has now been completed, and KP nationally has been a large contributor to enrollment. Answers will be forthcoming in the near future as to whether raloxifene or tamoxifen is a better chemoprophylactic agent.

Early studies^{15,16} have shown that another class of drugs—the aromatase inhibitors—affords secondary chemoprevention. For example, letrozole reduced by 50% the recurrence of new cancer among 5000 women with

early-stage breast cancer who had already received tamoxifen for five years.¹⁵ In addition, anastrozole reduced recurrences by 64% and death by 82% among estrogen receptor-positive women who had received tamoxifen for two or more years.¹⁶ Because of such findings, NSABP is contemplating initiation of chemoprophylactic trials of aromatase inhibitors compared with selective estrogen receptor modulators (SERMs), a class of drugs that includes tamoxifen and raloxifene. The COX-2 inhibitors represent another class of drugs that hold promise for breast cancer chemoprevention.^{17,18}

Risk Assessment—Missed Opportunities

Despite the availability of the Gail risk assessment tool, it has not yet found widespread use in clinical practice. Use of the tool has largely been limited to identifying patients eligible for chemoprophylactic research trials, such as the STAR Study. However, a tremendous opportunity exists for the tool to be used more directly in patient care and case management. An estimated ten million high-risk women eligible for tamoxifen have a Gail score above 1.67% and are aged 35 years or older.¹⁹ Further, for an estimated 2.5 million women, tamoxifen chemoprophylaxis would present a net benefit over risk.¹⁹ This net benefit would vary by age, race, and hysterectomy status of the drug recipient. A possibility is that, with widespread use of the Gail score and intervention for appropriate women, 29,000 cases of breast cancer could be prevented.¹⁹ This opportunity will be missed unless we alter our approach to risk assessment. *An ideal scenario would be for a Gail score to be calculated each time a woman undergoes screening mammography and for this value to be included in the radiology report.* Both the ordering clinician and the patient would be informed of the risk value and—on the basis of the result and the woman's race, age, and hysterectomy status—would be informed of the opportunity for chemoprophylaxis if appropriate. The woman and her health care practitioner would then be responsible for pursuing this option further.

Genetic (BRCA) Testing

For most women, the Gail score is adequate for breast cancer risk assessment. However, use of this tool is not a valid option for families who have a BRCA 1 or 2 autosomal dominant mutation. About 5% of women with breast cancer have the BRCA mutation.²⁰ Having a mutation of the BRCA 1 or 2 gene increases the risk of breast cancer far more than does any other known risk factor for this disease. Among women with mutation of the BRCA 1 or 2 gene, the risk of breast cancer by age 40 years is between 10% and 20%; by age 50 years, the risk is between 33% and 50%; and by age 70 years, the risk is between 56% and 87%.^{21,22}

Testing should be offered to women who have a high likelihood (ie, >10%) of having a mutation of the BRCA 1 or 2 gene. This strategy is recommended by the American Society of Clinical Oncology.²³ In particular, genetic testing should be considered under the following circumstances: 1) Two or more family members with breast cancer of early onset (ie, before age 50 years); 2) a family history of ovarian cancer and early-onset breast cancer; 3) a personal history of breast cancer at any age and a family history of breast cancer occurring before age 50 years; 4) a personal history of breast cancer occurring before age 50 years; 5) a personal history of ovarian cancer occurring at any age and a family history of either ovarian cancer or early-onset breast cancer; 6) a personal history of ovarian cancer and breast cancer occurring at any age. For women of Ashkenazi Jewish ancestry, in addition to the above criteria, several categories are associated with a high (>10%) risk of mutation: 1) a personal history of ovarian cancer occurring at any age; and 2) a family history of either ovarian cancer or early-onset breast cancer.

For women who test positive for mutation of the BRCA 1 gene, mutation of the BRCA 2 gene, or mutation of both genes, chemoprevention and prophylactic surgery can diminish the hereditary risk for breast

cancer. These interventions are associated with life expectancy gains comparable to the gains achieved by using chemotherapy for malignancy.²⁴ Prophylactic bilateral mastectomy represents an effective (though extreme) strategy for reducing breast cancer among women with BRCA mutations.²⁵ Prophylactic oophorectomy not only reduces the risk for ovarian cancer but also reduces the risk for breast cancer in women with BRCA mutations. For example, prophylactic oophorectomy reduced the risk of breast cancer in women with BRCA mutations by nearly 50%.²⁶ In addition, a recent study²⁷ showed magnetic resonance imaging (MRI) to be superior to mammography among women who had a familial or genetic predisposition to breast cancer.

Conclusion

Breast cancer risk assessment should be promoted, because it is a prerequisite for selecting appropriate candidates for risk reduction interventions. Currently, chemoprevention in selected women at high risk for breast cancer is the only proven method of lowering the incidence of breast cancer.

As a first step, each region and/or the Care Management Institute should review the United States Prevention Services Task Force evidence-based guidelines on breast cancer chemoprevention.¹⁰ Strong consideration should be given to endorsing or modifying such a guideline for KP use and to encourage or at the minimum be permissive as to best practice. A sample guideline is available from the author upon request.

For regions who mail patients notification letters of their mammogram results, consideration should be given to adding the following text to all of the letters:

"If you are age 35-69, you are encouraged to determine your five-year breast cancer risk through the Web site www.breastcancerprevention.org/raf_source.asp. If your five-year breast cancer risk is 1.5% or above you may be a candidate for risk reduction by taking a

drug called Tamoxifen for five years. Determination of who are good candidates for Tamoxifen is dependent not only on your five-year breast cancer risk but also your age, race and whether or not your uterus has been removed. If you are interested in learning more, call {region or subregion contact number} or your primary care provider. Finally, if your five-year breast cancer risk is 1.5% or above, you should get mammograms every year."

Hopefully in the future, individualized risk assessment and automated triage for chemoprevention can be incorporated into mammogram reports and/or KP HealthConnect. For example, Best Practice Alerts (BPA) promoting tamoxifen chemoprophylaxis could be programmed targeting women with pathology reports showing LCIS, DCIS, or remote invasive breast cancer. A Gail score questionnaire could appear periodically (eg, every five years) for women aged 35-59 years. A KIOSK approach with a self-administered risk assessment questionnaire could be adopted in conjunction with mammography. This approach has already been implemented as part of osteoporosis (DXA) screening in the KP Ohio Region and has been a tremendous aid to recruiting for the STAR study and appropriately offering other women chemoprevention.

Breast cancer risk assessment is not a panacea. Most women who have breast cancer as well as those who will develop it in the future are low risk. However, implementing breast cancer risk assessment and selected chemoprevention will reduce breast cancer incidence and mortality for those at high risk. KP is ideally situated to incorporate these strategies in a population-based approach. Too many lives have been lost; we should seize the opportunity. ❖

Acknowledgments

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Too Busy

Success usually comes to those who are too busy to be looking for it.

— Henry David Thoreau, 1817-62, naturalist and poet

Sentinel Lymph Node Biopsy for Patients with Breast Cancer: Five-Year Experience

By Richard S Godfrey, MD
Dennis R Holmes, MD
Anjali S Kumar, MD, MPH
Susan E Kutner, MD

Abstract

Background: Sentinel lymph node biopsy (SLNB) is rapidly gaining acceptance as a diagnostic tool for staging breast cancer.

Objective: Analyze trends among surgeons and facilities in Kaiser Permanente Northern California (KPNC) in adopting SLNB to stage cases of breast cancer and assess success in locating the sentinel node.

Methods: Retrospective review of data for patients whose breast cancer was staged using SLNB and axillary lymph node dissection between July 1997 through December 2002 at KPNC. Rates of false-negative results were calculated and stratified by surgeons' experience with SLNB.

Results: The number of SLNB procedures performed each month increased steadily from fewer than ten (in late 1998) to about 80 per month (in mid-2002) and were done at 17 facilities. Of the 132 surgeons who performed SLNB, most had done fewer than 15 procedures. The false-negative result rate overall was 6.53% (95% CI 4.75%, 8.73%); for surgeons who performed <30 procedures the rate was 8.58% (95% CI 5.52%, 12.60%); for surgeons who performed 20 to 30 procedures the rate was 13.08% (95% CI 7.34%, 20.98%); and for surgeons who performed more than 30 procedures the rate was 5.05% (95% CI 3.07%, 7.78%).

Conclusions: SLNB is rapidly being adopted at KPNC to stage cases of breast cancer and surgeons achieve an acceptable 6.53% false-negative result rate overall. The higher false-negative rate for surgeons who performed 20 to 30 procedures suggests that departments should expand efforts to monitor and proctor these surgeons.

Introduction

The most precise prognostic indicator for progression of primary breast cancer is lymph node involvement.¹ For this reason, as well as for local disease control, most surgeons include some form of lymph node dissection in their initial case management of breast cancer. Sentinel lymph node biopsy (SLNB) has gained acceptance as a first line diagnostic approach because it is more sensitive and causes less morbidity than traditional techniques for early staging of breast cancer.

After SLNB was found successful for staging melanoma, Giuliano et al² in 1994, proposed use of SLNB as an alternative to more extensive node dissection for staging breast cancer. Many papers in the surgical literature subsequently established that SLNB can provide more accurate results and cause less morbidity than standard

axillary node dissection.³⁻⁷ Working at the Kaiser Permanente (KP) Los Angeles Medical Center, Guenther et al^{8,9} documented efficacy and safety of SLNB. By 1999, the National Comprehensive Cancer Network (NCCN) recognized the procedure had rapidly gained acceptance as an appropriate diagnostic tool for determining whether cancer has spread to the surrounding lymph nodes. The current NCCN Breast Cancer Practice Guidelines¹⁰ support SLNB by experienced teams of practitioners for patients who meet selection criteria.

Beginning in 1994, the KP Oakland Medical Center (KP Oakland) used SLNB to stage cases of melanoma. On the basis of this experience, SLNB was introduced in 1996 to stage breast cancer. Early results confirmed that the method was reliable, and patients were pleased with the mild degree of post-surgical morbidity and short hospital stay.

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Sentinel lymph node biopsy (SLNB) has gained acceptance as a first line diagnostic approach ...



Special Feature
INNOVATION

Surgeons from other facilities joined KP Oakland in a collaborative trial that enrolled patients nationally.

Surgeons from other facilities joined KP Oakland in a collaborative trial that enrolled patients nationally. The KP Institutional Review Board approved the study. The trial provided an organized framework for accomplishing three goals: 1) to standardize use of SLNB in breast cancer staging, 2) to facilitate training of surgery and pathology teams, and 3) to establish a comprehensive database.¹¹ More than 40 centers from university and community hospital settings participated in this collaborative effort (titled The Early Detection of Occult Micrometastases in Invasive Breast Cancer), a prospective, multicenter trial which originated at the University of South Florida and was funded by both the US Department of Defense and the National Cancer Institute. KP patients were recruited from November 1997 through October 1999, and data from these patients constituted part of the database content. Initial results indicated that surgeons from participating facilities learned and reliably performed SLNB. Some long-term goals of the study are still in process and include determining the prognostic significance of micrometastases and evaluating use of polymerase chain reaction (PCR) as a diagnostic tool.

At regional and statewide KP symposia conducted from 1997 through 2000, KP physicians had academic and clinical training opportunities to develop and master SLNB technique. For example, a series of presentations by Daniel Navarro, MD, of KP Oakland introduced Nuclear Medicine departments to imaging

requirements; and in February 2001, TPMG sponsored its first National Surgical Symposium, to which Armando Giuliano, MD, Associate Medical Director and Chief of Surgical Oncology at the John Wayne Cancer Institute in Santa Monica, was invited to update KP surgeons from California, Colorado, and Hawaii on SLNB and its relevance for breast cancer and melanoma. TPMG data and research have been presented regionally, at national meetings, and in the surgical literature.^{12,13}

The Breast Cancer Tracking System of KP Northern California (KPNC) contains data on all SLNB procedures done at KPNC since July 7, 1997 for breast cancer patients. Using these data, we studied trends among TPMG surgeons and at KPNC facilities in adopting techniques of sentinel lymph node identification, dissection, and biopsy, processes that require coordination among departments of surgery, pathology, radiology, and nuclear medicine. By mid-2003, more than 2100 cases had been recorded. Although the database does not indicate rate of successfully locating sentinel lymph nodes, the database does contain false-negative results, ie, positive results of axillary node biopsy in patients with negative results of sentinel lymph node biopsy. We used this false-negative rate for limited assessment of the success of SLNB among KP surgeons. The present study was done to assess quantitatively the rate of successful SLNB in patients with breast cancer and to identify possible ways to improve the rate.

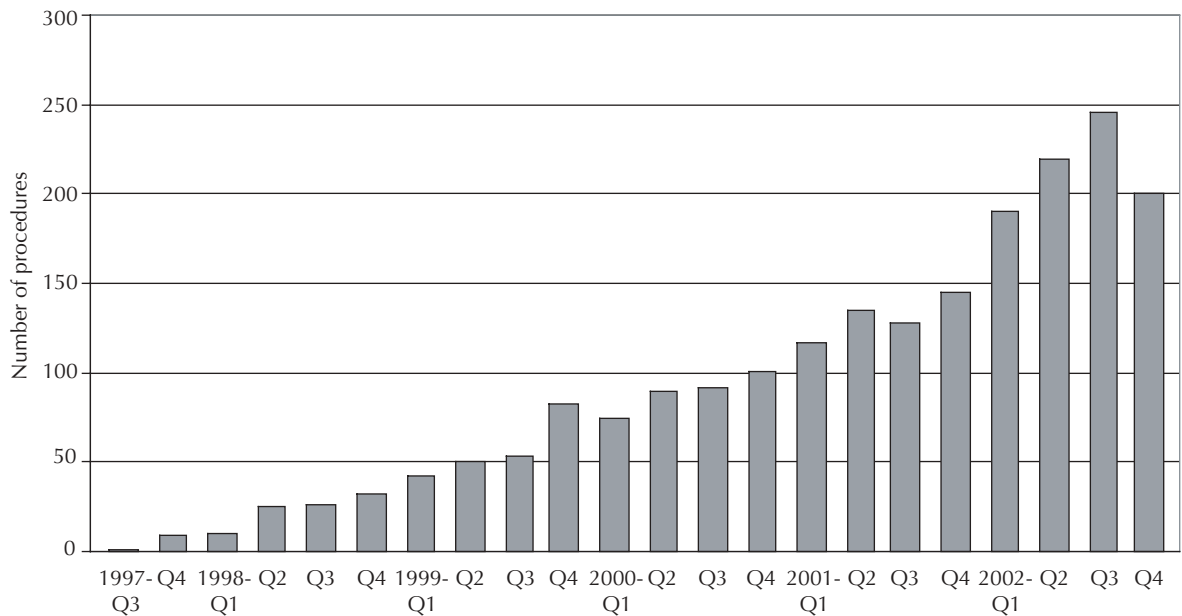


Figure 1. Trend in use of the sentinel lymph node biopsy (SLNB) procedure at Kaiser Permanente Northern California (KPNC) for patients with breast cancer and clinically negative lymph nodes.

Methods

Data in the KPNC Breast Cancer Tracking System were retrospectively reviewed to identify patients with clinically negative lymph nodes who had SLNB at KPNC facilities during the period from July 1997 through December 2002. Reviewed data included diagnosis (invasive breast cancer versus ductal carcinoma in situ), tumor size, histologic grade of tumor, nodal status of patient (test positive or negative for presence of tumor cells), and stage of primary tumor. American Joint Committee on Cancer stages T1 through T4 were used for this analysis.¹⁴ The sentinel lymph node identification procedure combined preoperative Tc99m sulfur colloid peritumoral injection followed by lymphoscintigraphy and intraoperative isosulfan blue dye injection into the peritumoral region of the breast. Sentinel lymph nodes that were thus identified (ie, either as radioactive or blue) were removed for excisional biopsy. If no sentinel node was identified, standard level I (with or without level II) lymph node dissection and biopsy were done.

A false-negative result was defined as concurrent negative result of SLNB and positive result of axillary node biopsy. False-negative rate for the SLNB procedure (proportion of false-negative results to the sum of true positive and false-negative results) was calculated, both overall and stratified by surgeon experience with the procedure. Patients who had SLNB and biopsy with-

out axillary node dissection were excluded from analyses of false-negative rate.

In almost all cases, serial sections of the node were permanently mounted, stained with hematoxylin-eosin, and microscopically examined to determine status of the sentinel lymph node. Initial pathologic examination was performed on-site at the surgical facility. At the KP San Francisco Medical Center, tissue was examined immunohistochemically for micrometastases, estrogen and progesterone receptors, and for over-expression of the HER-2/Neu gene.

Results

Between July 1997 and December 2002, 2098 patients with clinically negative lymph nodes had SLNB procedures. Of these 2098 patients, 437 patients did not have axillary node dissection and were excluded from the analysis of false-negative rates, and 1660 patients had standard level I or level II lymph node dissection with lumpectomy or modified radical mastectomy. The median age of patients was 59 years (range 23-95 years).

The monthly number of SLNB procedures increased steadily. Although fewer than ten per month were done in the first and second quarters of 1998, more than 30 procedures per month were done during the first quarter of 2001; by the third quarter of 2002, about 80 procedures were done per month (Figure 1).

The procedures were performed by 132 surgeons, most

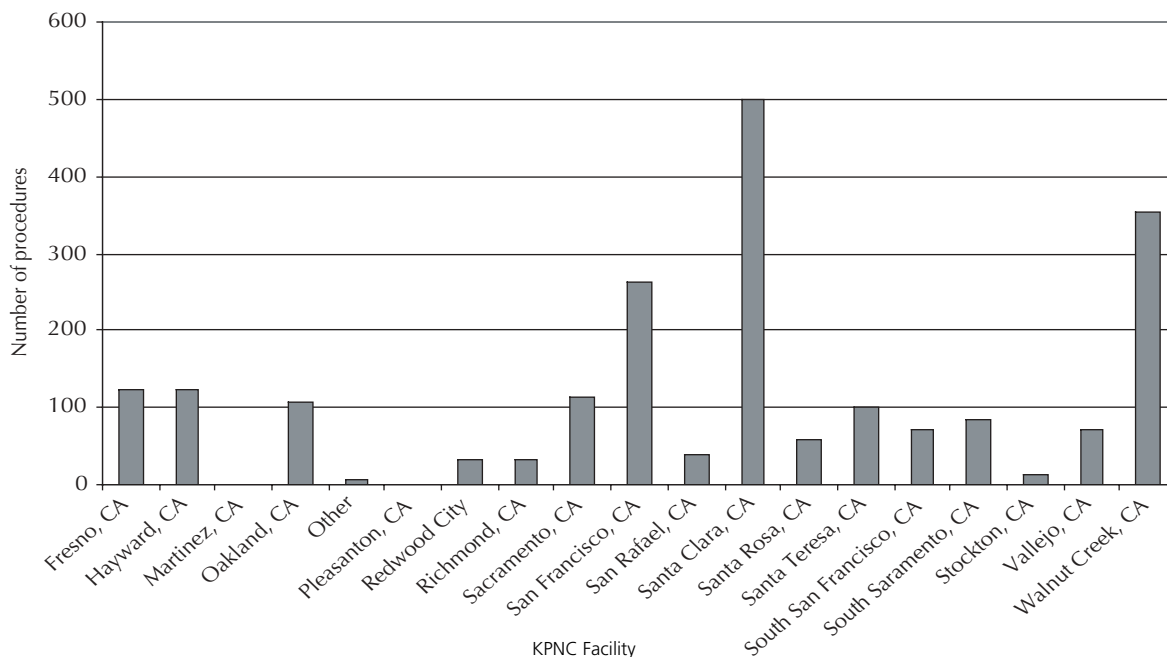


Figure 2. Graph shows number of SLNB procedures done at KPNC facilities from July 1997 through December 1997.

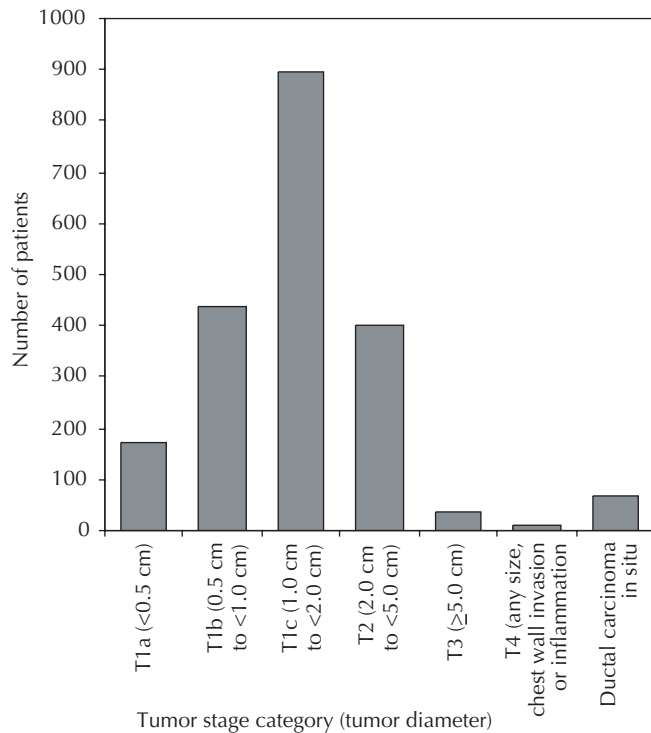


Figure 3. Graph shows tumor stage for 2097 breast cancer patients who received SLNB.

of whom were performing SLNB for the first time; 93 surgeons did fewer than 15 procedures, 17 surgeons did between 15 and 30 procedures, and 22 surgeons did 30 or more procedures. Procedures were done at 17 KP facilities; most were done at the KP medical centers in Santa Clara (n = 498), Walnut Creek (n = 352), San Francisco (n = 263), and Hayward (n = 123) (Figure 2).

Size of primary tumor varied among patients. Most patients had lesions that measured between 1.0 cm and 2.0 cm in diameter (tumor stage T1c) (Figure 3). Lesions in 69 (3.4%) of the patients were graded as ductal carcinoma in situ.

The overall false-negative rate was 6.53% (95% confidence interval [CI] 4.75%, 8.73%). The false-negative rate for surgeons who performed fewer than 30 procedures was 8.58% (95% CI 5.52%, 12.60%); the rate for surgeons who performed between 20 and 30 procedures was 13.08% (95% CI 7.34%, 20.98%); and the rate for surgeons who performed more than 30 procedures was 5.05% (95% CI 3.07%, 7.78%) (Figure 4).

Discussion

Surgical management of breast cancer has evolved in stages. Use of Halsted radical mastectomy was replaced

first by modified radical mastectomy and later by conservative breast surgery. Treatment of axillary lymph nodes in patients with invasive breast cancer has always been controversial. Because as many as 70% of patients who undergo lymph node dissection have negative biopsy results¹⁵ and because node dissection is often accompanied by postsurgical complications and morbidity, less-invasive methods were developed for staging breast cancer. This development was facilitated in particular by use of mammography and by earlier diagnosis of breast cancer (ie, when the tumor is small). Because the axillary lymph nodes of most breast cancer patients seen today are clinically and pathologically negative, the need for less invasive breast cancer staging is being met by SLNB.

The KPNC Breast Cancer Tracking System shows that SLNB is now performed regularly by Northern California TPMG surgeons. Introduction of new surgical procedures usually follows a pattern: Selected surgeons become familiar with the technique and then proctor other surgeons until the procedure becomes widely practiced. This pattern was suggested by our data. Of the 132 surgeons in the study, 58 performed SLNB fewer than five times during the period analyzed, and most (56%) of the 2098 procedures were performed by only 20 (15%) of the surgeons. This pattern also reflects a current trend in surgical practice: surgical subspecialization (ie, more breast cancer management is being done by fewer surgeons).

The ability to perform SLNB is measured primarily by the surgeon's rate of success in finding the sentinel lymph node and by the corresponding false-negative rate. Because this study was retrospective, the rate of successfully finding the sentinel lymph node could not be tracked. Combined use of blue dye and radioisotope allows surgeons to find the sentinel lymph node in 81% to 94% of patients.¹⁶ In a prospective study conducted throughout 1998 and 1999, TPMG surgeons had a 97% rate of successfully locating the sentinel lymph node. Although no data verify similar success for the surgeons in our study, early prospective study data are reassuring. Further, surgeons who could not locate a sentinel lymph node proceeded with standard lymph node dissection.

The rate of false-negative results best defines the accuracy of sentinel lymph node biopsy. If a sentinel node which tests negative for tumor cells at histologic examination is removed while a tumor-positive lymph node remains in the axilla, the disease will be understaged, leaving the patient at risk both for local and regional recurrence of disease and for metastasis.

A false-negative rate of 5% or less is mentioned frequently in surgical literature as a goal for surgeons performing SLNB.^{17,18} All TPMG surgeons combined had a 6.5% false-negative rate for the SLNB procedure. Because this rate was calculated for a large number of surgeons gaining early experience with the SLNB technique, the 6.5% rate affirms that promising introduction of a technology and technique.

How many times must surgeons perform SLNB before they achieve proficiency in this procedure? The 6.5% false-negative rate for all KP surgeons compares favorably with the goal of a 5% or less rate of false-negative results advocated in the general literature.^{17,18} However, our data show some conflicting trends: Whereas surgeons who performed fewer than 30 or more than 30 SLNB procedures had low false-negative rates (8.6% and 5%, respectively), surgeons who performed an intermediate number of SLNB procedures (20 to 30 procedures) had a higher rate of false-negative results (13%). Although the rates of false-negative results in national SLNB trials range from 0% to 17%¹⁷ and surgeons less experienced in the technique have higher false-negative rate,¹⁸ surgeons in our series who had an intermediate level of experience (20 to 30 SLNB procedures completed) had the highest rate of false-negative results. This unexpectedly high rate may reflect inadequate proctoring, lack of surgical proficiency,

or inappropriate selection of patients (ie, selecting patients who have advanced disease). The better false-negative rate among surgeons who performed fewer than 20 procedures may represent the combined experience of apprentice surgeons and their proctors; the false-negative rate may then have increased among the apprentice surgeons after they began to perform the SLNB procedure unassisted (especially after only a few proctored SLNB procedures) until more experience was gained. Data analysis (not presented here) confirmed that the entire group of KP surgeons and the group with an intermediate level of experience performed SLNB for similar percentages of patients with advanced disease. Data were not available describing surgical proficiency, selection of patients with advanced disease, or availability of a proctor during the SLNB procedure.

The proposed number of times a surgeon must perform the SLNB procedure before achieving proficiency in it ranges from 10 to 150.¹⁹⁻²¹ However, many authors suggest that experience with 20 to 30 SLNB procedures may be adequate,¹⁷ if the surgeon has received good proctoring and case management is coordinated jointly by a team of surgeons, radiologists, nuclear medicine specialists, and pathologists. Our data

A false-negative rate of 5% or less is mentioned frequently in surgical literature as a goal for surgeons performing SLNB.^{17,18} All TPMG surgeons combined had a 6.5% false-negative rate for the SLNB procedure.

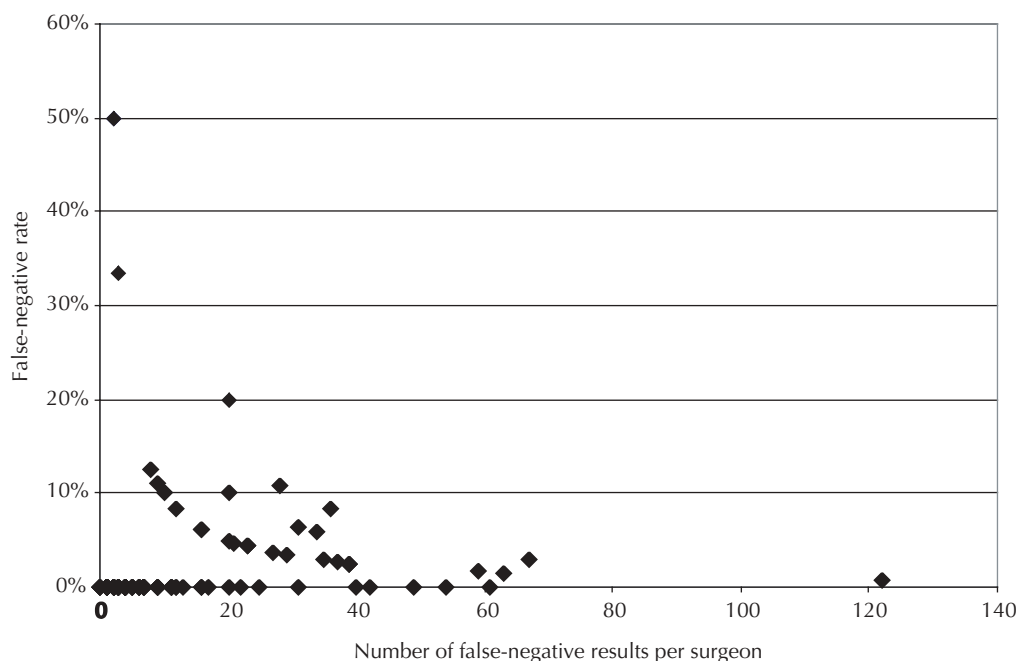


Figure 4. Graph shows SLNB experience of KP surgeons.

This focus of all our departments will help ensure that KP surgeons remain at the forefront of advances in therapy ...

showed that TPMG surgeons who performed more than 30 SLNB procedures achieved an acceptable rate of false-negative results of 5% or less. However, because of the 13% rate of false-negative results achieved by TPMG surgeons who performed 20 to 30 SLNB procedures, further efforts in monitoring and proctoring should be encouraged. Until national SLNB credentialing programs are developed, we advocate use of the NCCN guidelines.¹⁰ In addition, our data justify adopting a departmental policy which specifies the minimum surgical caseloads and monitors surgical results to verify a low rate of false-negative results (5% or less) for surgeons who have performed SLNB 20 or more times.

Continuing to Provide High-Quality Service

TPMG surgeons should be encouraged to monitor patients prospectively and to support development of a national database. To advance toward these goals, TPMG surgeons should participate in sentinel node biopsy trials such as the National Surgical Adjuvant Breast and Bowel Project study (NSABP) B32²² or the American College of Surgeons Oncology Group trials (ACSOG) Z-10 or Z-11.²³ The NSABP B32 trial compares patients undergoing full axillary dissection and patients receiving SLNB only. However, all patients with positive sentinel lymph nodes will have complete axillary node dissection. In contrast, the ACSOG trials will include patients with positive sentinel lymph nodes who do not undergo further surgery. The Z-10 trial will further assess the benefit of bone marrow biopsy for determining presence of metastatic disease.

Dr Lou Fehrenbacher of KP Vallejo has provided infrastructure for NSABP and other trials regionally, and TPMG surgeons have already contributed to the first national prospective SLNB trial.¹¹ In addition, using the Breast Cancer Tracking System, we have monitored 2098 cases and have established an independent database which facilitates prospective and retrospective quality review. As these data are transferred from a local database to the Population and Condition Tracking System (PACTS)—a Web-based application designed to track multiple conditions, including many types of cancer—clinical outcome must remain the focus in all surgical cases. This focus of all our departments will help ensure that KP surgeons remain at the forefront of advances in therapy and that we offer our patients the best possible treatment for breast cancer and other conditions. ♦

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Quality of Service

For the past few years, I have had the opportunity to observe the development of the Kaiser Foundation Hospital.

I am prepared to state that the quality of service to the sick is of a very high order.

The members of the staff are interested in advances in medical science and practice.

Their group contribution to our community is inspiring.

— *William Kerr, MD, Professor of Medicine, University of California Medical School*

Kaiser Permanente Women's Health Center of Excellence in Culturally Competent Care

By David Newhouse, MD
Maria Servin, MSW
Mala Seshagiri, MS, RD

In 2002, Kaiser Permanente (KP) launched its Women's Health Center of Excellence in Culturally Competent Care in the KP Northern California Region's Greater Southern Alameda Area (GSAA) Service Area, which includes the KP Fremont and Hayward Medical Centers. The KP National Diversity Program Offices' Institute for Culturally Competent Care made this designation of excellence possible. The Institute has awarded designation of Center of Excellence in Culturally Competent Care to KP facilities that are hallmark models of health care delivery to KP's diverse membership. The designation is an internal KP award. Centers develop innovative approaches to delivering clinical care customized to respond to the unique cultural beliefs and health practices of diverse member populations.

The KP Women's Health Center of Excellence establishes the GSAA Service Area as a leader in delivering personalized health care, education, and services for women. The Center will integrate three necessary principles for delivering health care in the 21st century:

- Awareness and knowledge of diversity;
- Respect for individual beliefs, customs, and practices; and
- Culturally competent care.

The GSAA Service Area continues

to reflect a growing multicultural and multilingual population that is highly diverse and has substantial language requirements: At least 56 languages have been identified among KP members in the East Bay. According to the 2003 Meteor Survey, the GSAA KP membership is 49% white, 20% Hispanic, 20% Asian, and 6% black. Current data indicate that marketing efforts are not penetrating a substantial Asian population—in particular, the Chinese and Latino populations, which will continue to grow. Women with limited English proficiency are known to go to extra lengths to access and receive health care services for themselves and for their family members.

Recent data from the KP Fremont and Hayward Medical Centers show that women are the major users of health care services. Women are the largest group of patients in all departments except urology and pediatrics, where male children surpass females by a small percentage. Despite these statistics, KP continues to provide medical care in a mostly traditional manner.

The Women's Health Center of Excellence has four primary goals:

- To assemble and analyze background data used for implementing program interventions and to expand culturally com-

petent care and services for women;

- To compile key learnings and tools;
- To share our experiences and expertise with others internal and external to KP; and
- To develop best practices and approaches for women's health care.

The center offers learnings derived from women's health and multilingual communication programs and services initiated by such programs and services as the Multilingual Women's Health Program, the Baby-Friendly Hospital Initiative, and the Latina Breast Cancer Project. These programs and services continue to evolve along with the rapid growth of our diverse communities and member population segments.

The center's current focus includes a Women's Health Educational Series, the Breastfeeding and Cultural Norms Research Project, and domestic violence. Key learnings as well as identified gaps and opportunities will enrich these programs and services to more effectively meet the health care needs of all women.

Multilingual Women's Health Project

The purpose of the Multilingual Women's Health Project was to implement a coordinated system of



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care for women with limited English proficiency and their families to improve access to health care, the quality of health care outcomes, member satisfaction, and marketing outcomes. Considering each of these factors was necessary for a comprehensive ethnic marketing and revenue-generating effort. A total of 163 Spanish-, Cantonese-, and Mandarin-speaking members participated in a preliminary survey.

Medical appointments were coordinated for the patient and her family within specific agreements made between departments. Spanish and Chinese interpreter services were provided to all families during appointment visits. Ongoing follow-up with families was provided as needed to ensure follow through.

The services were most beneficial to patients who were monolingual and new to the KP system and required assistance and coordination of care because of multiple health care needs. Satisfaction of patients and clinicians also improved. The Multilingual Women's Health Project has also served as an important gateway for addressing other pressing women's health care issues, eg, breast cancer.

Baby-Friendly Health Care Services

Several years ago, the KP Hayward Medical Center decided to provide the best support possible to breastfeeding babies and their mothers. To accomplish this goal, the best approach was determined to be development of a program that would enable the medical center to receive World Health Organization (WHO) designation as a Baby-Friendly™ hospital.

With formal creation of the Breastfeeding Task Force (in 1990), the KP Hayward and Fremont Medical Centers established their mission

Table 1. Ten steps to successful breastfeeding¹

<ol style="list-style-type: none"> 1. Maintain a written breastfeeding policy that is routinely communicated to all health care staff. 2. Train all health care staff in skills necessary to implement this policy. 3. Inform all pregnant women about benefits and management of breastfeeding. 4. Help mothers to initiate breastfeeding within one hour after birth. 5. Show mothers how to breastfeed and how to maintain lactation even if they are separated from their infants. 6. Give infants no food or drink other than breast milk unless medically indicated. 7. Practice rooming-in: Allow mothers and infants to remain together 24 hours per day. 8. Encourage unrestricted breastfeeding. 9. Give no pacifiers or artificial nipples to breastfeeding infants. 10. Foster establishment of breastfeeding support groups, and refer mothers to these groups when the mothers are discharged from the hospital or clinic.
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to increase the number of mothers who choose to breastfeed their infants throughout the first six months of life. The multistep designation process ensued.

The principle of being baby-friendly is based on a set of practices called the Ten Steps to Successful Breastfeeding (Table 1).¹ After a medical facility team has implemented all ten steps, assessors from the organization Baby-Friendly USA™ visit the hospital and conduct an in-depth audit. If a hospital has fully implemented all ten steps, the hospital is awarded the Baby-Friendly™ designation.

In January 2001, the KP Fremont and Hayward Medical Centers were officially notified that they had together become the 30th Baby-Friendly™ hospital in the United States. Since that time, the KP Hayward and Fremont Medical Centers have evaluated the impact of the initiative on breastfeeding rates in their combined facilities. A pediatric chart review of more than 2000 babies born in the periods immediately before, during, and after full implementation of the initiative indicated that implementation of the Baby-Friendly Hospital Initiative™ was associated with

statistically significant increases both in exclusive breastfeeding and in breastfeeding combined with use of infant formula. These data have not yet been published.

Latina Breast Cancer

Of the approximately 200 women diagnosed with breast cancer every year in the GSAA Service Area, about 10% are Spanish-speaking. Latina women tend to associate cancer with myths—and these myths become cultural barriers to medical treatment. As a result, these women avoid receiving conventional medical treatment in the early stages after diagnosis and thus greatly reduce the effectiveness of treatment and rates of cure. Approximately 20% of Spanish-speaking women postpone treatment by as much as six months. In the interim, some of these women may seek alternative forms of medical therapy accepted by their culture. These women tend to eventually try modern medicine at a KP medical center, by which time the rate of successful treatment has been substantially reduced. In two recent cases, the patients delayed their treatment for more than four months.

In an informal 2002 needs assessment of Latina breast cancer pa-

tients, women reported that language barriers made it difficult to get questions answered about their treatment and that they would have preferred to be treated by Spanish-speaking clinicians. By implementing use of trained interpreters, by increasing clinicians' awareness of culturally sensitive issues regarding breast cancer, and by increasing their comfort with the use of interpreters, we reduced treatment delays and provided culturally appropriate care. To date, we have developed several specific tools and services for further improving this care (Table 2).

Other Achievements of the Center

The center also conducted focus-group sessions that were titled "Body in Balance: Seeking Perspectives in Women's Health." These sessions were conducted at the KP Fremont Medical Center attended by

more than 150 participants. The focus groups were led by clinicians and discussed topics such as balance, stress reduction, heart disease, and menopause. Those areas of interest to women were identified in responses given to a survey distributed before the program began.

The center also organized a lecture series during Women's Health month. The lecture series focused on topics such as weight, menopause, alternative forms of therapies, and stress management. These lectures were well received and appreciated by members.

Another accomplishment of the center is its emphasis on birth as a celebration. The center is dedicated to providing linguistically and culturally competent care to women across the GSAA and to provide opportunities for learning with the ultimate goal of better service, efficiency, and clinical outcomes for all our patients. ❖

Acknowledgments

Kaiser Permanente (KP) funding from 2000 through 2003 was received from the Innovation Program (for the Multilingual Women's Health Project); the Greater Southern Alameda Area (GSAA) Innovation Programs (for the Latina Breast Cancer Project, for project management of the Center of Excellence materials used for the Diversity Conference, and for coordinating the Body in Balance event); the Community Benefit Program (also for the Body in Balance event); and the KP National Diversity Program Offices (for materials for the Diversity Conference and for the breastfeeding research project).

We thank the Body in Balance event volunteers from various KP departments (Health Education, Dermatology, Pharmacy, Interpreters, Personal Physician Selection Services, Marketing, Medical Social Work); other persons who volunteered for the event (JoAnn Griffin, Larry Dennon, MD, Ruth Shaber, MD, Kay Taylor, MD, and Naomi Newhouse, CNM); persons who volunteered as speakers for the May 2004 Women's Health Week talk series (Kay Taylor, MD, Barbara Brown, PhD, Rebecca O'Brien, MD, Dave Newhouse, MD); and Nancy Dyal, consultant for Center of Excellence materials.

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1. BFHI USA [Web site on the Internet] [cited 2004 Nov 8]. Available from: www.babyfriendlyusa.org/eng/index.html.

Table 2. Tools and services developed by KP Women's Health Center of Excellence in Culturally Competent Care

Tools Currently Available

- Breastfeeding and cultural beliefs information sheet
- Guide to "Achieving Baby-Friendly™ Designation"
- Report on the care experience of Latina women with breast cancer
- Spanish language materials and resources for Latina women with breast cancer
- Currently collaborating with national diversity offices to develop a culturally competent care provider handbook on women's health

Services Currently Available

- Partnership with community health center (Tiburcio Vasquez Health Center) to conduct support groups for Latina patients diagnosed with breast cancer
- Interpreter services: three Spanish, three Chinese, and one American sign language interpreter on staff

Can Patients and Physicians Thrive in the 21st Century?

By Scott M Gee, MD
Rachelle Mirkin, MPH

As the 21st Century unfolds, although great progress has been made in the diagnosis and treatment of many medical conditions, many key national health indicators demonstrate dramatic worsening in the health status of Americans. An epidemic of obesity and Type 2 diabetes are sweeping the nation at an alarming rate. Depression and stress continue to be prevalent, yet are often left undiagnosed.

As physicians rise to meet these health challenges, they are faced with the reality that the practice of medicine is continuously becoming more demanding. Advances in the science of medicine and increasing requirements for performance improvement challenge physicians to meet higher and higher expectations. Permanente physicians are now experiencing the most dramatic changes in the last 50 years.

To address these challenges, many organizational initiatives have been developed. Permanente physicians are supported by an extensive network of health professionals such as care managers, dietitians, psychologists, and health educators. An extensive library of patient health information is available on the Clinical Library Web site, physician home pages, and at health education centers. Many health education classes are available. The Healthy Beginnings Program for pregnant women and the *Menopause Guidebook* are available to address the needs of our women members. The physician home pages, patient lab letters, and Preventive Health Prompt have demon-

... many key national health indicators demonstrate dramatic worsening in the health status of Americans.

strated that information technology can be used to improve the quality of care while at the same time making health care more personalized and efficient. The KP HealthConnect and www.members.kp.org Web sites represent the next evolution of these programs and a breakthrough in the integration of information technology and health care.

Despite all these initiatives, some physicians and patients describe their lives more in terms of surviving than thriving, and many of the tools, services, and programs available are underutilized. To thrive is defined as to prosper; to flourish; to be successful especially as a result of industry, economy, and good management. The integrated systems, innovations, and programs of Kaiser Permanente (KP) give KP members and Permanente physicians the opportunity to thrive if one chooses to use the tools and services described. In this journal, numerous innovations and educational approaches to improving care are described. The Teen Choices and Challenges Program represents a potential

breakthrough in reaching teens and young adults. The Early Start and Family Violence Programs have been nationally recognized as model programs. The Primary Care Conference is an opportunity for Permanente physicians to keep up to date with the latest innovations and to network with other Permanente physicians. With all of these tools and services available, thriving as a physician or patient is simply a matter of choice. ❖

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The Women's Health Track of the Kaiser Permanente National Primary Care Conference

By Ruth Shaber, MD

Twice a year the Kaiser Permanente National Primary Care Conference (PCC) brings together expert clinician-presenters from all over the Kaiser Permanente Regions. The Women's conference format five years ago and has continued to grow in participation and popularity. Besides offering the latest evidence-based medical information, the conference is always held in a relaxing atmosphere and allows quality time to renew and invigorate the spirit. The PCC faculty is invited to attend a Faculty Development Workshop to improve presentation style and skills. The workshop includes on-camera and group critiquing and is a great opportunity even for experienced presenters.

Most recently, the meeting took place in Las Vegas, Nevada (October 2004). The overall attendance for the conference was approximately 350—including physicians, nurse practitioners, registered nurses, and other allied health professionals from all over the country. The Women's Health

Track was the largest ever with 96 registered attendees.

Some of the Women's Health topics featured in Las Vegas included:

- Musculoskeletal Problems in Active and Athletic Women—Presented by Robert Sallis, MD, Southern California
- HPV and New Cervical Cancer Screening Guidelines and Gynecologic Cancer Update—Presented by Walter Kinney, MD, Northern California
- Women's Respiratory Health: Gender and Sex Differences—Presented by Reginald Mason, MD, KP Georgia
- The Epidemic of Chlamydia—Presented by Charles Wibbelsman, MD, Northern California; Victoria Mancuso, MD, Northern California; and Lee Jacobs, MD, Georgia
- Evidence-Based Approach to Complementary and Alternative Medicine: Chiropractic, Acupuncture, and Herbs—Moderated by Lee Jacobs, MD, Georgia; Panelists: Kirk Pappas, MD, Northern California; Stanford Shoor, MD, Northern California; and Tierona Low Dog, MD, guest presenter.

The Spring 2005 National Primary Care Conference promises to be equally interesting and relevant. Please look for the announcement for the next conference in Maui (page 107) to be held from March 20-25, 2005 or go to: www.kpprimarycareconference.org.

Some of the Women's Health Topics planned for the spring include:

- Cosmetic Dermatology and Plastic Surgery
- Polycystic Ovarian Syndrome and Metabolic Syndrome—What's the relationship?
- Lactation—Physiology, Medications, and the Impact on Primary Care
- Sexuality—Physiology and Implications for Women with Chronic Diseases
- Evidence-Based Approach to Complementary and Alternative Medicine: Spiritual Healing, Prayer, and Meditation
- Management of Obesity
- HPV and New Cervical Cancer Screening Guidelines and Gynecologic Cancer Update

I look forward to seeing you in Maui! ❖

... Kaiser Permanente National Primary Care Conference (PCC) brings together expert clinician-presenters from all over the Kaiser Permanente Regions.



Ruth Shaber, MD, joined the Ob/Gyn Department at KP in South San Francisco in 1990. In 2001, she was appointed the Director of Women's Health for the KP Northern California Region. She lives with her husband David, daughter Maddy, and dog Poppy in Redwood City, California. She practices Bikram Yoga twice a week to stay well and thrive. E-mail: ruth.shaber@kp.org.

The Emergency Contraception Online Learning Module

By Debbie Postlethwaite, RNP, MPH

Kaiser Permanente (KP) has been on the forefront of educating providers and members about emergency contraception (EC) since 1996, even before a dedicated product was available. EC is up to 89% effective and is exceedingly safe for all women at risk for an unintended pregnancy. Despite awareness efforts, EC has remained underutilized. Recognizing this fact, recommendations were made by a California-wide EC Task Force to increase prophylactic prescribing by all providers who care for women of childbearing age, especially those who are exposed to teratogenic medications and chronic conditions that

negatively impact pregnancy.

KP Northern California Regional Women's Health—in cooperation with Multimedia, Pharmacy and Analytical Services (PAS)—and Physician Education—developed the Emergency Contraception [Online] Learning Module. The module is approved for one CME and consists of an 18-minute video: *Emergency Contraception, Not Just an Ob/Gyn Issue* and a 19-slide PowerPoint presentation entitled: *Emergency Contraception, You Can Make a Difference*, a pretest, a posttest, and a brief evaluation of the teaching tool.

The EC Learning Module can be accessed by going through the

Northern California Women's Health KP Intranet site: <http://insidekp.kp.org/california/womenshealth>. On the front page is a link to the hosting site: PAS (Figure 1). The focus of the module is on the evidence that supports prophylactic prescribing of EC by all primary and specialty care providers who care for women and also discusses safety, efficacy, and prescribing issues. Several case studies are included.

Women's Health has received mostly positive feedback about the EC Learning Module through online evaluations and e-mail communications. As of August 2004, more than 250 providers have participated in this online CME program. Out of the 250 responding to the evaluation, 63% were "very satisfied," and an additional 32% reported "satisfied." When asked if they would be likely to view another online Women's Health video module, 93% reported they would and 90% reported they would be likely to use the materials presented this way as a reference. Providers from all KP Regions have accessed the EC Learning Module, the greatest percentage have come from both Northern and Southern California. So many providers and pharmacists from Southern California have accessed the site too that SCPMG Physician Education chose to accredit the program. Two hundred pharmacists from KP Orange



Figure 1. Emergency Contraception link on KP Northern California Women's Health Intranet site.

County plan to use the module to satisfy state requirements for direct prescribing via collaborative treatment agreements with the Ob/Gyn physicians. This strategy will result in faster screening and dispensing of EC for Orange County KP members. PAS streamlined the CME certification system to allow for providers and pharmacists to download their own CME certificate. CME records are also maintained with respective regional physician education departments.

We invite you to take a look at the module for important information about EC and how it pertains to your practice. The EC Learning Module has been accredited by Northern California Physician Education until October 29, 2006. Women's Health believes the success of the EC [Online] Learning Module stems from effective marketing and cooperation from all departments that participated in its development. Look for more Women's Health online CME education projects in the future. ♦



The EC Learning module can be accessed by going through the Northern California Women's Health KP Intranet site: <http://insidekp.kp.org/california/womenshealth>.

Debbie Postlethwaite, RNP, MPH, is the Women's Health Director of Projects and member of the Ob/Gyn Department at the KP Daly City Medical Office in the Northern California Region. Her passion is developing effective strategies to reduce unintended pregnancies and improve preconception health. E-mail: debbie.a.postlethwaite@kp.org.



Teen Challenges

By Jennifer Cullen

Ask any teen what is bothering them, and you'll get a range of responses: problems with friends, not getting along with parents and family, being stressed out about money and their future—not to mention teens who face pregnancy, addiction, abusive relationships, and depression. Circumstances such as these affect teenagers on a daily basis and have a lasting impact on their health and well-being. Providing teens with a safe place to share,

working with them to problem solve, and helping them to make positive, healthy choices in the future is the collective aim of adolescent providers.

... sounds great, but how does one really accomplish this? On an individual basis, it is not easy to get teens to be honest about their behavior. Another challenge is finding methods that appeal to adolescents and engaging them in thinking about health choices. And what about those teens with whom there is no opportunity to assess and educate because they don't come in for visits with their physician? How do clinicians treating adolescents get them to tell what is going on with them so that appropriate education, resources, and treatment can be offered?

The Kaiser Permanente (KP) Santa Rosa Teen Clinic may have the answer. It's called *Teen Choices and Challenges*, a Web site devoted to teenagers. The Web site addresses many of the everyday concerns that

teenagers face, including health, weight, body image, relationships, stress, smoking, alcohol, drugs, and more. Covering a variety of health and lifestyle topics, the Web site gives teenagers a place to privately get answers to questions and to learn about issues that are important to teens. Mandy Weltman, Pediatric Clinical Health Educator at KP Santa Rosa, manages the program at the KP Santa Rosa Teen Clinic, where almost 100 teens have logged on to participate. She sees that the Web site fills a need for adolescent members. "A lot of kids have problems and concerns," Ms Weltman said. "But they don't want to or don't know how to talk to someone about them."

Teen Choices and Challenges serves as both an assessment tool and an educational component of adolescent care. When teens register on the Web site, they are asked to complete a questionnaire about themselves. Upon completion, a personalized report is generated, that teens can print, read, and keep. Their report includes health education material, tailored health messages based on the teen's responses to the questionnaire, and local KP and community resource information.

The Web site also fills a need for the clinic's clinicians and other staff. Ms Weltman has a password that allows her to log on to the Web site and view a summary report of individual teens' behaviors and risk areas. If a high-risk behavior is triggered, Ms Weltman contacts the teen, engages in a counseling intervention,

arranges for the teen to come to the clinic for a physician visit, or refers the teen to appropriate services. Ms Weltman and the clinicians treating adolescents at the clinic worked together to develop a "care path," or decision tree of protocols she follows for each behavior triggered by the assessment tool and appearing in her summary report. Recently, Ms Weltman called a 14-year-old member who had triggered a risk area for sexual behavior. Initially, the girl did not want to talk to Ms Weltman. But two weeks later, the girl called back and discussed the issue with Ms Weltman, seeking an understanding ear and advice.

Designed with the help of teens, the Web site has a look and feel that appeals to teenagers. And it is confidential. Ms Weltman cannot see the answers adolescents provide in the questionnaire; instead she is alerted to high- and medium-risk areas that require her further professional assessment. Security of the Web site is maintained by password-required access for teens and clinicians, firewalls, and encryption. In addition, deidentified aggregate data are available on the Web site for the clinic to evaluate teen behavior and population-based problem areas that providers can collectively address.

How it Works for Adolescents

- Accessible from any computer with an Internet connection, the *Teen Choices and Challenges* questionnaire can be

A lot of kids have problems and concerns ... But they don't want to or don't know how to talk to someone about them.



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completed by teens from home, school or on-site in the clinic at a computer station.

- Teens are provided with an access code to enter the Web questionnaire.
- The questionnaire covers 11 different topic areas that capture health and mental health issues faced by teens, including nutrition, weight, and body image; drug, alcohol, and tobacco use; physical activity; safety; stress and depression; sexual behavior; personal relationships, and conflict resolution; and general health.
- The questionnaire can be customized to include specific topics for more focused learning, such as a “weight management module” covering weight, nutrition, physical activity, and body image.
- Upon completion, teens can view and print their personalized results, including health information and local community and/or KP resources.
- Although no one can view their questionnaire responses, clinicians, counselors, and health educators may have access to a summary report of a teen’s risk areas. Upon review of summary reports, clinicians and other staff can contact individual teens to

arrange appointments, conduct a counseling session, refer to services, and provide outside resources or other support.

- Teens are provided the contact information of someone at their clinic (often a counselor, nurse, or clinical health educator) to contact with questions or to discuss their results.

How it Works for Providers and Staff

- *Teen Choices and Challenges* is available both to KP Clinics and to community organizations at no charge.
- Physicians, health educators, nutritionists, counselors, and other professionals can initiate participation of a clinic or department.
- A password created for the clinician is tied to their teen member’s access code and allows access to the Web-based teen summary reports.
- Clinicians can search for an individual teen’s report by looking for the teen’s name or by searching for teens who have completed the questionnaire in the past day, week, or other period of time.
- A staff person can be appointed to monitor the teens’ results, contact teens to coun-



sel and offer services, and coordinate with clinicians on the basis of teen participants’ level of need.

- Outreach approaches can be conducted to contact teens who have not recently seen their physician and to encourage them to complete the questionnaire from home.

Next Steps

Teen Choices and Challenges is available to KP and community-based sites. Because it is Web-based, the questionnaire is easy to implement. KP Regional Health Education provides training and support. Please contact Jennifer Cullen at (510) 987-3511 or jennifer.cullen@kp.org to learn more. ❖

The Problem

The young always have the same problem—how to rebel and conform at the same time.

—*Quentin Crisp, 1908-99, actor and author*

Doctor, Should I Take Hormones?

By Laura Kale, MD

Introduction

Perimenopausal and menopausal women today face a dilemma when deciding whether to begin or continue a regimen of hormone therapy (HT). Before the estrogen-only arm of the Women's Health Initiative was stopped,¹ most women were urged to take hormone therapy. This practice ended when the study showed an increased risk of breast cancer and when this and other studies² showed no protection against heart disease.

The basic clinical response to the question, "Doctor, should I take hormones?" is outlined by two aspects of clinician-patient communication: 1) the clinician should elicit pertinent history from the patient to provide a foundation for the most appropriate response to the question; and 2) the clinician should present to the patient relevant facts with which the patient can make an informed decision.

Eliciting Pertinent Medical History to Determine HT Suitability and Risk

To evaluate the suitability of HT for the patient, the clinician may begin obtaining the pertinent medical history by stating simply, "I would like to ask you a few questions to see if you are an appropriate candidate for hormone therapy." The patient may then be asked if she is having menopausal symptoms such as hot flashes, night sweats, insomnia, irritability, or vaginal dryness. If the patient answers in the affirmative for any or all of these symptoms, the clinician should clarify the extent to which the patient feels disabled by the symptom or symptoms. The clinician may ask whether the symptoms are interfering with the patient's ability to function in daily life, in relationships with family or friends, or with the patient's ability to function at work.

The clinician should then ask a series of questions that establish presence of any risk factors associated with HT. This questioning should determine whether the patient has a history of blood clots, heart disease, stroke, breast cancer, osteoporosis, or gallbladder disease; whether and how much the patient currently participates in exercise activities; whether the patient's diet includes at least 1500 mg of calcium daily; and whether the patient smokes. The patient's past experi-

ence with HT can be determined by such questions as the following:

- "Have you ever taken hormone therapy?"
- "How did you feel when you were taking hormone therapy?"
- "Did you have any complications or side effects that limited your use of the hormones?"

Assisting the Patient in Making an Informed Decision

To help the patient decide whether to begin HT, the clinician should provide an overview of the situation. This may be done by telling the patient, "When making this decision whether to use hormones, we have to weigh the potential risks and the benefits. In most women, estrogen very effectively reduces many symptoms of menopause. We should evaluate your own risk factors before beginning this therapy." The patient should also be told that HT may be the best choice if the patient has multiple debilitating symptoms but that alternatives to HT are available if the patient has only a single, isolated symptom. For example, vaginal estrogen or moisturizers may be used to treat isolated vaginal dryness, and antidepressants such as fluoxetine may be used for relief of hot flashes or mood disturbance.

The clinician should also present the concept of potential risks and should discuss each risk specifically. For example, the clinician might say, "Let's talk about the potential risks of HT. For years, we strongly encouraged use of hormones for all menopausal women to protect them against heart disease and osteoporosis. However, we have now learned that there are some potential risks in taking hormone therapy."

Risk of heart disease can be introduced by explaining that early studies³⁻⁶ showed a favorable effect of HT on lipid profile, leading to the flawed assumption that patients receiving HT would have a lower risk of heart disease. Some women actually have an increased risk of heart attack during the first two years of estrogen use,⁷ and these women may have underlying heart disease that is difficult to assess. Many affected women do not exhibit classic symptoms of heart disease.

A discussion of osteoporosis risk can begin by saying,

The clinician should also present the concept of potential risks and should discuss each risk specifically.



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“Estrogen does help prevent osteoporosis. All women should have an intake of 1500 mg of calcium daily, either through diet or supplements. To increase bone density, weight-bearing exercise is important and should be done at least two or three times a week. If you are not doing these two things, it is important to begin now. Do not smoke; and limit your alcohol intake to fewer than seven drinks per week. If you have or are at high risk of developing osteoporosis and you have menopausal symptoms, you might choose to treat both with hormones. If you are not symptomatic, there are other potentially safer medications to use instead of HT, such as Fosamax or Evista. We can assess your risk for osteoporosis to help you make that decision.”

A discussion about breast cancer risk can begin by saying,

“The relation between hormone therapy and breast cancer is controversial.⁸⁻¹² Of the 50 or so good studies, half show a cumulative, long-term increase in the risk among women taking only estrogen. This risk is increased one tenth of 1% for each year of use,¹ so it takes ten years of use for the risk to increase by 1%. If we assume that the average woman has a 1/8 (12.5%) risk in her lifetime, it would take ten years for the risk to increase to 13.5%. For women who take estrogen and progesterone, the risk may not even be this high. We’re hoping that further studies will shed more light on this area.”

Other risks, too, may be discussed by saying, for example,

“While taking hormones, you have a very slightly increased risk of stroke,^{1,6} blood clots developing in the legs or lungs,^{1,6} and gallbladder disease.^{13,14} The risk is small but may be greater for women who have a history of these conditions or have a family history of these conditions.”

To close the discussion, the clinician may summarize the situation by offering statements such as the following:

- “As you can see, there is no simple answer to your question of whether to take hormone therapy. This is not one of those medical conditions when I can tell you the right thing to do.”
- “Only you can assess the severity of your symptoms, and only you know what risks you may be willing to take to relieve those symptoms.”
- “If you choose to take hormone therapy, we’ll start with the lowest dose possible so that we reduce the risks as much as possible. We can further assess your risk for those diseases I mentioned, and that may help you to make your decision.”

By communicating with patients in this informative, interactive way, the clinician can tailor treatment so that the patient achieves maximum relief—emotionally as well as physically—from the discomfort of menopausal symptoms. ❖

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The relation between hormone therapy and breast cancer is controversial.⁸⁻¹²

Faces of AIDS Photography Display

I was captivated by the *Faces of AIDS* photography exhibit when it was shown at the KP Oakland Regional Offices. Kaiser Permanente (KP) Northern California sponsored the display, and since 2002, the *Faces of AIDS* exhibit has traveled throughout the KP East Bay Service Area and Regional Offices. The hauntingly beautiful photos, and the individual stories with each photo, allow the viewer to relate to the people featured in a whole new light. Even though some of the people featured have passed on because of the disease, many are living with the disease, as are all their stories. Every December 1, World AIDS Day is celebrated and, in 2004, the event is appropriately focused on Women, Girls, HIV and AIDS as the theme of World AIDS Day. This population represents one of the fastest-growing number of new AIDS cases.

The *Faces of AIDS* exhibit was conceived by Judith Briggs-Marsh, one of the founding members of the East Bay AIDS Advocacy Foundation in 1994, according to Gloria Cox Crowell, current Board President. Ms Cox Crowell says the display is a “tool to inspire dialogue and to create different perceptions about the disease and the people who live with AIDS.” The foundation also provides leadership development for people with AIDS, which supports advocacy that can influence policy. Patricia Rambo,

curator of the exhibit, interviewed all the people photographed and helped them convey the messages they wanted viewers of the exhibit to have about living with AIDS. Ms Rambo has a son she describes as “living and thriving with HIV for 18 years.”

The acclaimed photographer for the *Faces of AIDS* is Jim Dennis, native of San Francisco. His work spans more than 30 years and he has exhibits at a variety of art venues across the nation including: the Kodak Gallery in New York, the Museum of Science and Industry in

Chicago, and the Oakland Museum in Oakland, California. Mr Dennis learned early in life that he had a talent to capture elements that provoked thought and stirred emotion through his work.

The *Faces of AIDS* photography exhibit is available to travel to other KP Regions for the cost of shipping. Jim Dennis and the East Bay AIDS Advocacy Foundation are also

looking for new faces to add to the display each year. Mr Dennis is available to come to different KP Regions to add “local faces” to the exhibit. If you have a patient living with AIDS who would like to be featured in the *Faces of AIDS* Exhibit, please contact either Jim Dennis Photography at jmdennis@dnai.com, Gloria Cox Crowell at croglo@pacbell.net or Patricia Rambo at pirambo@earthlink.net. ❖

... the display is a “tool to inspire dialogue and to create different perceptions about the disease and the people who live with AIDS.”



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soul of the healer



Margaret [Grandara]: *"I say to myself, you can live with this disease."*



Piper [Hyland]: *"Diagnosed at 16 forced her to mature faster. Piper feels the illness has brought her wisdom beyond her years."*



"I would like more emphasis on teaching about safe sex, sexuality, and respect for self."



Denise [Rushing]: *"Sharing information and love with people who are affected by HIV gives me purpose. If I had anything to tell anyone, it would be this: Life goes on."*



Cynara [Dillon]: *"I got HIV from my husband of 23 years. I am the mother of three children. Now I visit schools and encourage students about getting informed—for their own benefit."*



Christine and Rebecca [Burkhart twins] (only Christine acquired HIV from her mother): *Their grandmother says: "With God, family, and friends, I have a lifeline. Giving with love and understanding is the best medicine. I know having dedicated doctors and more money for research to find a cure, Christine can have a future life."*

Normal Birth



Ione Brunt, CNM

Despite considerable debate and research over many years, the concept of “normality” in labour and delivery is not standardized or universal. Recent decades have seen a rapid expansion in the development and use of a range of practices designed to start, augment, accelerate, regulate, or monitor the physiological process of labour with the aim of improving outcomes for mothers and babies¹

The statement above begins the preamble of *Care in Normal Birth: A Report of a Technical Working Group*, published by the World Health Organization (WHO).¹

In our fast-paced, high-technology world, we have difficulty agreeing on what constitutes “normal birth.” For some, the term is an oxymoron because they believe—as does an obstetrician friend of mine—that “pregnancy is a disease.” For the purpose of this editorial, normal

birth is defined as low-risk pregnancy with spontaneous onset of labor occurring between 37 and 42 weeks’ gestation. Labor is allowed to progress on its own with the free movement and positioning of the mother throughout. After birth, the mother and infant are in good condition and are allowed unlimited time for breastfeeding and initiating bonding.

The World Health Organization estimates that between 70% and 80% of women entering labor are at low risk.¹

The birthing environment has changed in the more than 40 years that span my career. These changes have been influenced by many things—some helpful and progres-

sive, others challenging or even detrimental. In the 1960s, change was consumer-driven: Women began to demand a stronger voice in choices regarding labor and delivery. They refused to be medicated without their permission: They wanted to remember the birth experience. Mothers found it unhelpful to progress through labor only to be given a saddle block just before delivery and to have the baby delivered by forceps or vacuum extractor. They wanted the support of their loved ones throughout the labor and delivery process. The significance of bonding was emphasized. Breastfeeding on demand was a goal. And women wanted these options made available to them in the hospital where they would give birth: They wanted the safety net of modern medical knowledge. The prepared childbirth movement helped push these choices into hospital practice.

Our ability to safely manage pain in the form of intrathecal and epidural anesthesia has changed the birthing environment; with this change, however, we see prolonged labor curves, an increase in instrument-assisted delivery, and a suspected increase in the rate of cesarean birth. Currently, the rate of

cesarean birth is 26.1%, the highest ever in the United States.² At the same time, the rate of vaginal birth after cesarean (VBAC) has fallen precipitously to 12.6%.² The *Healthy People 2010* expert working group (including representatives from the American College of Gynecology [ACOG]) recommended a target national cesarean delivery rate of 15% and a VBAC rate of 37%.³

Another change is today’s adversarial legal environment, which results in astronomical increases in malpractice premiums. This result forces many obstetric providers to leave their obstetric practice. In addition, the physicians and midwives who remain may be more likely to practice defensively. Believing that technology will protect us from adverse outcomes, we have developed a strong reliance on it. Using information gathered on all births in 2002, the latest data from the US Centers for Disease Control and Prevention (CDC) *National Vital Statistics Report* shows that use of electronic fetal monitoring has increased from a rate of 68.4% (in 1989) to 85.2% (in 2002).² This increase has occurred despite prospective randomized controlled trials being conducted in more than 18,000 patients and showing that immediate and long-term outcomes for high-risk and low-risk women were not improved by use of electronic fetal monitoring compared with intermittent auscultation and that electronic fetal monitoring increases the rate of cesarean births substantially.⁴ The number of

The World Health Organization estimates that between 70% and 80% of women entering labor are at low risk.¹

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women receiving ultrasonographic evaluation in this same period increased from 47.7% to 68%.² Induction of labor for all gestational ages (including premature infants below 37 completed weeks of gestation) increased from 9.0% (in 1989) to 20.6% (in 2002), a 129% change.² In upstate New York, where the regional induction rate was approximately the same as the national average, a study of 31,352 deliveries evaluated variation in rates of induction by hospital and practitioner and found that 25% of inductions were for no apparent medical indication.⁵

Although change in use of technology in the birthing environment has mushroomed, the infant mortality rate (defined as the number of infant deaths in the first year per 1000 live births) has changed very little since 1990 and has actually increased from 6.8 (in 2001) to 7.0 (in 2002).⁶ The March of Dimes Perinatal Data Center still lists the United States as 28th among countries reporting infant mortality data to the WHO.⁷

Rates of maternal mortality (number of maternal deaths from complication of pregnancy per 100,000 live births) has decreased 99% since 1900 from 850 maternal deaths to 7.5 maternal deaths. However, for the last 22 years—specifically, since 1982—we have seen very little further progress: The maternal mortality rate varies from six to eight maternal deaths per 100,000 live births.⁸

What does all this have to do with Kaiser Permanente? Our business is health maintenance. Keeping birth normal seems to me not only an obvious goal but also a cost-effective one. What can we do to promote, protect, and support “normal birth”?

From the beginning of pregnancy, we can encourage open and honest communication by discussing

and explaining what is happening and why. Knowledge reduces fear and anxiety and improves compliance. Encouraging mothers to review with us a personalized birth plan prepared during pregnancy furthers communication and offers a way to discuss realistic expectations. Risk must be assessed prenatally and updated at each contact and during labor and delivery. These risks should be discussed with the mother and her family *dispassionately*, allowing for realistic adjustments in the plan for birth.

Providing continuous attendance by someone trained in labor support (such as a doula, a nonmedical labor assistant whose role is to comfort and support the mother and father during birth or to care for the mother and newborn infant) may help the mother to reach her birthing goals and substantially improves families' satisfaction with their experience. We can periodically update our repertoire for labor support—including use of noninvasive, nonpharmacologic methods of pain relief—particularly if the goal is a minimally interventive birth.

We must empower mothers with the belief that their bodies are made to give birth and, in most circumstances, will do that well. We must dissipate the idea that without our high-technology intervention, babies cannot be born healthy and safe.

We can make our intervention minimal and noninvasive and progress to use of technology only when needed. We can let labor start on its own when there is no medical indication to induce. Using standardized definitions of fetal heart rate patterns and working to agree on the meaning of these patterns in

terms of what intervention, if any, is needed may help to reduce inappropriate intervention.¹⁰ We can become more comfortable with using intermittent auscultation when this can be done appropriately and safely. Mothers should be allowed—and actually encouraged—to have freedom of movement and position throughout labor. We must determine if and when intravenous fluids should be initiated and if and when

other sources of fluid and nourishment are appropriate. We need more information on the appropriate use of amniotomy before using this procedure routinely during labor. We must recognize that pulling or stretching the perineum probably does not help the baby to descend more quickly and does not protect the perineum. We must remember that the baby belongs to the mother and not to us. With adequate drying and stimulation, placing the normal baby skin-to-skin with the mother provides a great warmer and a chance to let the mother begin the bonding process. This practice also facilitates breastfeeding initiated within the first hour of birth.

Our job at Kaiser Permanente is health maintenance, and we are great at doing this in high-risk, dangerous situations for mothers and babies. I hope we can be equally as good at providing this health maintenance for low-risk mothers having a “normal birth.” It makes sense, it's cost-effective, and it's the right thing to do. ❖

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A Convenient Time

Death and taxes and childbirth!

There's never any convenient time for any of them.

— *Gone with the Wind*, Margaret Mitchell, 1900-49, American author

Disaster Relief—“What Can I Do to Help?”

By Lee Jacobs, MD

The recent tsunami disaster has led people throughout the world to ask: How can I help? As health care professionals, we wonder how our skills might help those in need.

After a disaster, the first responding agencies have limited roles for volunteers. When recovery efforts are complete and basic infrastructure is in place, there is usually a need for long-term health care support. Well-organized, short-term health care teams can be of tremendous value to a recovering community.

Most international agencies responding to disasters do not have the capability to mobilize large numbers of short-term volunteer teams. This is the role of the volunteer organizations.

The value of health professional teams is directly related to how well volunteers are recruited, oriented, and equipped. Over the past 12 years, I have mobilized teams of health professionals to remote regions of Central Asia and, as a flight surgeon in the US Air Force, I participated in disaster responses. While disaster re-

sponse and routine humanitarian support may be different in many ways, many of the logistical issues confronting volunteers on short-term teams are the same.

It is for this reason that I am presenting these practical lessons. I hope Permanente Medical Groups, as well as other medical groups, will take steps to develop the capability of sending numerous volunteer teams to countries in need, today and for years to come.

Practical Suggestions for Health Professional Volunteers

The idea is to help and not be a burden! This requires an effective three-way partnership with an on-field coordinator, a humanitarian agency, and a well-trained, well-equipped team of professionals under an experienced team leader. Success is directly related to how experienced these three partners are, how well they collaborate together, and how effectively they fulfill their roles (Sidebar 1). The lack of an experienced field coordinator and team leader will almost certainly compromise the team's effectiveness.

The Mission— *What the Team Will be Asked to Do*

The field coordinator will determine the specific activity of the team, possibly in collaboration with the agency. The team leader shares the capabilities of the team, including health disciplines, special skills, and time commitment of the team. The realization that the mission is field-driven helps team members understand that what they will do might be very dif-

Sidebar 1. The Three-Way Partnership Defined

A. Partnering Agency:

- Identify the most appropriate site and mission for the health care team
- Provide the field coordinator or identify a capable person in the field
- Provide the necessary clearance from local authorities

Few agencies, if any, have the capability for fulfilling what is stated below under Team Leader. Partnering Agencies do not mobilize teams of professionals, especially on a large scale for a short term.

B. Field Coordinator:

- Primary contact for the team leader
- Works with local authorities to tentatively plan clinic operations
- Provides appropriate cross-cultural orientation
- Organizes the pool of translators
- Determines housing and food sources

C. Team Leader:

- Responsible for selection, orientation, and equipping the team
- Collaborates with the Field Coordinator in pretravel planning
- Is the on-site supervisor
- If possible, makes a pre-trip to the field
- Overall responsibility for accomplishing team mission and creating a positive experience for first-time volunteers

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ferent from what they anticipate. This spirit of flexibility is of paramount importance to the success of the team.

Applicant Screening— Who Gets to Go

Many are willing, but few are chosen. Health care practitioners are, in general, compassionate individuals. Many would like to serve; however, there are many parameters for designing the team.

Health Status: This is probably the most common reason for not joining the team. Important considerations are: a) any physical condition that potentially may require medical attention within two days, b) any condition that may be aggravated by prolonged travel or rugged living conditions, and c) anyone markedly out of shape and unable to participate in a physically stressful trip.

Team members who are ill the day of departure should *not* be allowed to depart with the team. This includes members with unexplained fevers or with severe respiratory or gastrointestinal infections—Tough call but a precautionary necessity.

Application: Unless a person is well known, request a reference to substantiate that the person is emotionally, physically, and attitudinally able to function on a team. These aspects are greatly magnified by the stresses of remote village health care work and, if in deficit, can jeopardize the mission of the team.

Team Size: Although there may not be an optimum size, it is very

difficult to mobilize teams of more than 20 people. The logistics of transportation and housing are factors for consideration. My preference is to organize several teams of 15 or fewer.

Team Structure: The overall field and agency-driven humanitarian mission will suggest the make-up of the team. Registered nurses are especially helpful, and pharmacists provide essential familiarity with medications. It is helpful to blend experienced team members with newcomers. Finally, nonmedical personnel can also be valuable members of the team; many important activities do not require medical skills.

Team Orientation— Preparing for the Experience

Vaccinations: The requirements are available on the CDC's Web page (www.cdc.gov) and from any travel clinic. Generally, hepatitis A and B vaccinations, typhoid, and an updated diphtheria tetanus are needed. Geographic location determines the indications for inactivated polio, yellow fever, and malaria prophylaxis.

Cultural Awareness: This is probably the most important orientation activity and includes appropriate attire. For footwear, comfort is essential. Hiking shoes are fine unless you will be in a culture where you remove your shoes when you enter a house; then slip-on shoes work better. Scrubs are always appropriate; white coats are good but difficult to carry. People of many cultures expect their health caregivers to dress as health care professionals. In many Muslim settings, skirts and scarves for married women are appropriate. Display as little jewelry as possible.

Postcards of home and pictures of you and your family make great

gifts. *KoolAid*® is always welcomed. People love *Polaroid*® pictures. Be careful about passing out candy in public unless there's enough for all the children! Never give money or heavy objects.

There are many rules of etiquette but most important is to obtain a person's permission to take their picture. The use of alcohol is problematic in many cultures.

Only basic language skills are necessary. "Cheat sheets" for medical terms may be helpful.

If you have any questions as to what is appropriate, contact your team leader or field coordinator (see Sidebar 2).

Travel Logistics— Complex but Exciting

Planning Period: Although teams can mobilize in a few weeks, it usually requires 30-60 days planning. Passports are required.

Duration: I generally take health care teams for ten days or fewer, organizing the itinerary so we have at least five days in the field.

Transportation: Plane tickets can be purchased at group rates. In-country transportation is always a challenge but is the responsibility of the field coordinator. Vans (usually without seatbelts) or minibuses are superior to cars. Small planes in developing countries are very risky but may be the only mode of transportation available.

Safety: There are no guarantees. The field coordinator certainly will know if a location is safe. The greatest risk is from the transportation. The poor condition of the roads and vehicles and lack of seatbelts contribute to the risk. The team leader should obtain the best transportation possible and make certain drivers slow down.

Luggage: Most of the luggage allowance should be allocated to the

Only basic language skills are necessary. "Cheat sheets" for medical terms may be helpful.

Sidebar 2—The Don'ts

- Don't make promises or commitments.
- Don't consider bringing people back to the United States
- Don't give money, not even to the translators

medical supplies. The second checked-in piece is allocated to a team footlocker containing supplies. The exact weight (for all legs of the trip!) should be predetermined to avoid overage charges. All should be encouraged to carry on personal supplies so both checked items can be allocated for medical supplies.

Housing and Food: These are dependent on the capability of the infrastructure.

Water: The most important, least adhered to advice! Each team member should carry his or her own water bottle with a built-in filter. For example, the *Extream* water bottle filters bacteria and parasites but, most importantly, kills viruses (see picture).

Antibiotic Prophylaxis: As an infectious disease physician, I am sensitive to the appropriate use of antibiotics and am aware that this is a controversial topic. I am unaware of any evidence supporting or refuting the use of prophylactic antibiotics. This is a personal decision, but for very remote settings, I do recommend prophylaxis to our team members.

For the Team: A team First Aid kit to include medicines for team members and not for use in the clinic (examples: *IM phenergan*, *lomitol*, *Epipen*). **A satellite phone** is invaluable for emergencies and for volunteers to reassure their families.

Field Clinic Organization— Now We Make it Happen

Facility: An appropriate field worksite is essential. The facility needs to be a quiet place that has good natural lighting and good ventilation with, at least, curtains to provide some privacy. There should be a few large rooms with hallway waiting areas and a good door to control the flow into the clinic. In outdoor clinics, it is still important to keep the crowds away from the



Extream water filter bottle.

care site as much as possible.

Security: Most fields necessitate 24-hour security guards. Crowd control is critical and must be provided by the local authorities. This is a key point of discussion with the local authorities before the clinic opens. It is also important to make certain that the medicines and supplies are secure.

Patient Flow:

- **Focus Triage:** This is a critical area in both disaster relief and follow-up humanitarian relief. Planning with local authorities is critical.
- **Pace:** Team members should realize that they can't cure the world but can impact those in need, one person at a time. The team must take time to listen and provide emotional as well as physical support. Touching with the gloveless hand is important, so wear gloves only for the usual specific infection control problems.
- **Multiple complaints:** There are limits to the amount of time you can spend with each per-

son; so to avoid being presented with a long list of complaints, ask the local officials and triage workers to make it clear that only one or two problems can be evaluated.

- **Thankful patients?:** The vast majority of people you serve will be very grateful that you have traveled so far to care for them. However, team members should be prepared for the ungrateful or abusive person. This is rare but provides a reminder that we serve for personal reasons that go beyond the expectations that we will be appreciated.

Medicines: The mission will drive the inventory. Generally, a team can be equipped for approximately \$500/day—more if surgery or vaccinations are involved. Don't forget weight implications: for example, exclude cough medicines and adult vitamins; however, prenatal vitamins are considered essential.

Roles of Team Members: The mission dictates the make-up of the team. Nonmedical assistants can serve as patient flow coordinators, pharmacy assistants, assistants to the door guards, etc.

Working with Translators: This is a key area that is rarely mentioned in preparing teams. Team members must know how to relate to their translator. They are not only the voice of the team, they are also the resource to understand the culture. Be patient! Most nationals have learned their English in school and usually are unfamiliar with medical terms. The field coordinator should have a list of common medical words to brief the translators before the team arrives. The most functional translator support is one translator for each person on the team. The most proficient translators should be

assigned to the practitioners. The translator will want to please you; be appreciative and patient. Do not give any money or make any commitments to the translator without checking first with your team leader.

Lab Support: Minimal availability. Depending on the mission, glucometers and urine dipsticks may be available. Usually there is limited need or availability beyond these types of tests.

Specific Diseases: It is helpful to learn from the field coordinator and translator as much as possible about what you can expect to see in your clinic and local cultural terminology and myths. Understanding cultural bereavement is important in postdisaster situations.

Expect the Common: Most problems will be what you are used to seeing (eg, carbuncles needing drainage) and ailments simply needing a basic first aid approach.

Public Health Teaching: Training is a key area. Nurses can hold group training sessions on food preparation, water, sanitation, etc. Translators and the supporting agency can provide input to make the curriculum relevant.

Diarrhea: People are used to living in a different state of well-being than you may be used to. A specific example is widespread, mild diarrhea. Interventions should be reserved for marked diarrhea or significant increase in loose stools.

Involving the Local Health Care Professionals: This is an excellent opportunity to build relationships and teach. However, don't discuss approaches unavailable to the local professionals, and don't put them in a difficult situation by leaving stockpiles of medications in their custody. Most appreciated are BP cuffs and stethoscopes, a consideration for the team as they pack their supplies before leaving home.

Closing

I hope the readers of *The Permanente Journal* find these suggestions helpful as they consider their role in volunteering for health care teams providing relief in remote areas.

You will find this experience to be so rewarding that you will want to return again (our objective!) and to recruit others. Most important, you might want to be a future team leader, probably one of the most important factors in mobilizing effective teams.

Can you imagine if Kaiser Permanente and other large medical groups develop this capability so that they can annually mobilize effectively a large number of these health care teams? It would impact the lives of people serving and being served for years to come.

This is only the beginning of a dialog, so please send me your lessons learned so that together we can create an effective volunteer force. ❖

Joy

I slept and dreamt that life was joy;
I awoke and saw that life was service;
I acted and behold,
service was joy.

— Rabindranath Tagore, 1861-1941, 1913 Nobel Laureate
for Literature, Indian poet and composer

permanente in the news

A compilation of news, significant awards, and accomplishments about Permanente clinicians and employees and the Permanente Medical Groups.

KP News Roundup

Kaiser Permanente (KP) Colorado is One of Nation's Top Ten Health Plans, Says NCQA; Other Regions Receive High Regional Ratings



For the second consecutive year, the National Committee for Quality Assurance (NCQA) has named KP **Colorado** to its list of the nation's top ten health plans for clinical care quality, in its recently released *Quality Compass 2004*.¹

The report also identifies the top five performers in each region. Both the **Georgia and Mid-Atlantic States Regions** were among the top five health plans in the South Atlantic Region; and the **Hawaii, Southern California, Northwest, and Northern California Regions** dominated the Pacific Region rankings.

KP's **Northwest Region** was named one of the top five West Coast health plans (out of 26 evaluated). When compared with 261 other health plans across the nation, they were 15th in customer service satisfaction, 12th in medical assistance with smoking cessation, and 11th on blood sugar monitoring for diabetics.

The **Georgia and Colorado Regions** also were awarded NCQA's highest accreditation status of "Excellent" for their HMO commercial and Medicare products.

KP's **Mid-Atlantic States and Georgia Regions** were named in the top five health plans for effectiveness of care in the nation's South Atlantic Region, which encompasses 44 plans stretching from Delaware to Florida. The Mid-Atlantic States earned eight Best of Class designations out of 32 clinical quality and prevention measures/sub-measures. The Best of Class designation, used as a benchmark of quality, is achieved for scores on clinical measures that are in the top 10% or above for plans nationwide.

NCQA is the premiere source for information about the quality of the nation's managed care plans. Its "Excellent" accreditation status is granted only to health plans that meet or exceed NCQA's rigorous requirements for consumer protection and quality improve-

ment and whose HEDIS results are in the highest range of national performance.

An independent nonprofit group that measures the quality of health care, NCQA accredits health plans and serves as a resource for purchasers, regulators, and consumers. The annual report is based on an analysis of health plan performance measures from its database of performance information of 563 health plans providing health care coverage to about 69 million Americans.

Northern California and Northwest Regions Win 2004 Lawrence Patient Safety Award



Two excellent patient safety projects focused on reducing medical errors have been awarded the Lawrence Patient Safety Award for 2004. Winning the first annual Lawrence Patient Safety Transfer Award is the **Northwest Region** Preoperative Briefing Project, a project to transform the patient safety culture in the region's operating rooms and reduce the number of medical errors, focusing on the number of burn injuries to patients. The Transfer Award, new this year, is given to the region that best replicates a prior year's winning project—in this case, the Anaheim Medical Center's Preoperative Briefing Program in the Southern California Region. The successful preoperative briefing project is now being transferred throughout the Northwest Region.

The **Northern California Region** won the second annual Lawrence Award with its Perinatal Patient Safety Project, a four-year pilot to reduce birth injuries caused by human error and systemic problems. The Perinatal Patient Safety Project (PPSP) was piloted at four sites using local multidisciplinary perinatal patient safety teams that were developed at each site and armed with training, tools, and data. The project continues in 2004 at four additional medical centers in Northern California: Redwood City, Vallejo, Sacramento, and South Sacramento. In 2005, the Oakland, Fresno, Santa Rosa, and Santa Clara Medical Centers will be added.

By Barbara Caruso, BA

Barbara Caruso, BA, is a senior Communications Consultant for The Permanente Federation. E-mail: barbara.caruso@kp.org.





Care Management Institute Executive Director Honored for Visionary Work in Chronic Disease

Paul Wallace, MD, Executive Director of KP's Care Management Institute (CMI), was one of the recipients of the 2004 Vision Award at the Improving Chronic Illness Care (ICIC) Congress. Also honored was Jonathan B Perlin, MD, Acting Undersecretary for Health, and the Department of Veterans Affairs.

The 2004 awards celebrate the pioneering work and positive impacts on the care of the chronically ill of KP and the Veterans Health Administration.

Care Management Institute and HealthMedia awarded an Honorable Mention C Everett Koop National Health Award for 2004

CMI and HealthMedia, Inc, have been awarded an honorable mention in the C Everett Koop National Health Award for 2004. The award, one of only two Koop Awards given, was for "Balance: A tailored, Internet-based weight management program."

The Koop Awards rank among the most prestigious awards for health improvement programs, requiring strong documentation of both health improvement and cost savings. For 2004, there was only one winning program, General Motors Corporation/UAW. Twenty-one programs were seriously considered this year.

CMI was the Co-Principal Investigator and funder for the study, known as THeME (Tailored Health Message), a randomizing controlled trial (RCT). CMI and HealthMedia also partnered in conducting the analysis and writeup of the findings. The THeME RCT tested the effectiveness of HealthMedia's Balance Program compared to user-navigated, non-tailored, Web-based weight management support in four KP regions.

The Balance program, along with other HealthMedia programs, is now available to KP members on the member Web site: www.kp.org.

KP Patient Safety Expert Newest Member of JCAHO Advisory Group

Suzanne Graham, RN, PhD, Patient Safety Director for the California Regions, is one of the newest members of the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) Sentinel Event Advisory Group. Ms Graham accepted an invitation

to join the prestigious committee that recommends national Patient Safety Goals to JCAHO. Ms Graham, a well-known national patient safety expert, has served in multiple roles within KP at the medical center, regional, and national levels. She is a graduate of the University of North Carolina Kenan-Flager Business School, the KP Advanced Leadership Program, and the AHA Health Forum Patient Safety Leadership Fellowship Program.

The Sentinel Event Advisory Group consists of patient safety leaders from across the United States and has 23 members.

David Eddy, MD, Awarded Prestigious Award from Centers for Disease Control and Prevention

David Eddy, MD, Senior Scientist for the Archimedes Project, has been awarded the prestigious "2005 Distinguished Achievement Award" from the Centers for Disease Control and Prevention (CDC) in conjunction with its partners in the Institute for Quality in Laboratory Medicine (IQLM). The IQLM Awards Workgroup has acknowledged Dr Eddy's work as pioneering and for his contributions in health care.

Developed by the Biomathematics Unit of the Care Management Institute, Archimedes is a simulation model for health care that creates a "virtual reality" in which patients, providers, and institutions interact as they would in the real world.² This model allows physicians and researchers to quickly see the outcome of research and to study questions about best-treatment recommendations and cost of treatment.

The Permanente Medical Group (TPMG)

Santa Clara Medical Association Recognizes KP Physicians

Two physicians at the Santa Teresa Medical Center received awards from the Santa Clara County Medical Association. **Elizabeth Menkin, MD**, Geriatrician and Hospice Medical Director, Continuing Care Services, received the award for Outstanding Contribution in Community Service for her work with Coda Alliance. Coda Alliance promotes advance discussion of end-of-life care with families and health care providers.

Barry Miller, MD, retired, Orthopedics, received the Outstanding Contribution in Medical Education Award for teaching practical musculoskeletal assessment skills to primary care physicians.



Colorado Permanente Medical Group (CPMG)

KP Colorado Named State's Top Health Care Company

ColoradoBiz magazine, UMB Bank, and Deloitte & Touche recently named KP Colorado the state's top health care company at its 17th Annual Top Company of the Year Awards Luncheon.

The Top Company of the Year Awards honor companies who demonstrate outstanding achievements and performance in various industry categories.

Mid-Atlantic Permanente Medical Group (MAPMG)

Mid-Atlantic States Leads the State in Quality

The Mid-Atlantic States Region received more *Star Performer* and *Above Average* scores than any other participating HMO and POS plan in the State of Maryland, according to *Measuring the Quality of HMO and POS Plans: 2004 Consumer Guide*, recently released by the Maryland Health Care Commission (MHCC).

KP was named a *Star Performer* in 15 categories—11 more than the next-best health plan—and *Above Average* in 17 categories, nine more than the next highest scoring health plan.

The *Star Performer* rating is given to those HMOs who receive *Above Average* scores in specific measures for three consecutive years.

INOVA Fairfax Hospital Urology Department Ranked Number 37 in *US News and World Report* Survey

The INOVA Fairfax Hospital Urology Department was ranked number 37 in the *US News and World Report*'s ranking of the top hospitals in 17 specialties.³ The department chair is **Stuart Katz, MD**, an MAPMG urologist. INOVA Fairfax is one of the region's core hospitals, with KP members accounting for a third to a half of the urology caseload at the hospital. The ranking is based on the volume of cases and the quality of care provided in terms of complications, morbidity, and mortality.

Janice Beaverson, MD, Named Associate Medical Director for Quality and Care Management

After 22 years with KP, **Janice Beaverson, MD**, has been named Associate Medical Director for Quality and Care Management, partnering with Kay Lewis, Vice

President of Quality for the Health Plan. Dr Beaverson and Ms Lewis will have joint accountability for ensuring quality for all aspects of operations.

MAPMG Physician Receives Immunization Excellence Award

Cynthia Joseph, MD, received the 2004 Maryland Immunization Excellence Award for her work implementing the KP Immunization Management (KIM) system and promoting the importance of adult and childhood immunizations locally and nationally.

KP Physician Named President of American Academy of Pediatrics Chapter

Leslie Ellwood, MD, FAAP, a pediatrician at the Fair Oaks Medical Center and former Chief of Pediatrics, Mid-Atlantic States Region, has been named President of the Virginia chapter of the American Academy of Pediatrics.

Southern California Permanente Medical Group (SCPMG)

KP Medical Teams Honored for Operation Smile

In recognition of the outstanding volunteer work provided by KP medical team members, KP received the 2004 Corporate Humanitarian Award at the celebrity-studded Third Annual Operation Smile Gala in Beverly Hills, California.

Presented by actor **Hector Elizondo**, the Corporate Humanitarian award was accepted by **Jeffrey A Weisz, MD**, Medical Director and Chairman of the Board, SCPMG, in honor of the 20 KP team members who took part in Operation Smile's humanitarian mission to surgically correct cleft palates and cleft lips in children around the world.

The KP surgeons, nurses, anesthesiologists and technicians honored by Operation Smile included West Los Angeles team members **Robert Rubin, MD; Andrew Wexler, MD; Touraj Touran, MD; Jon Plaisance, CRNA; Denice Klein, RN; Linda Scira, RN; Virginia DeCastro, RN; Karen Kennedy, RN; and Josephine Silbor, RN**; Woodland Hills team members **Labib Samarra, MD; James Yu, MD; Susan Storch, MD; Pariborz Namdari, MD; Stefanie Feldman, MD; Louis Sterling, Marina Goodsea, and Alicia Degroff**; and Panorama City team members **Mary L Wilson, MD, and Kerry Newman, MD**.

Nationally Acclaimed KP Dermatology Chief Paves Unique Medical Path

Nancy Jasso, MD, Chief of Dermatology, Panorama City, has been chosen to be prominently featured in “Changing the Face of Medicine,” an exhibit that recently opened at the NIH National Library of Medicine in Bethesda, Maryland.

Honoring the lives and achievements of women in medicine, the exhibit showcases how women physicians are serving in the highest ranks of the medical profession, caring for whole communities, and responding to new challenges in health care around the world. Dr Jasso is included in the exhibit for her commitment to providing quality care to her patients and for her role as one of the founding physicians of a laser tattoo-removal project for the San Fernando Valley Violence Prevention program, where she works as a volunteer each Saturday. Dr Jasso is also featured in the exhibit’s opening video presentation that includes seven distinguished physicians who have paved a unique path in the world of medicine. Find out more about the exhibit and view Dr Jasso’s video online at www.nlm.nih.gov/changingthefaceofmedicine/.

Study Concludes KP Cancer Care Ranks Among the Best

A KP study has shown that the surgical success rates of cancer patients who underwent reconstructive microvascular head and neck surgery at the KP Regional

Head, Neck & Skullbase Surgical Oncology Center compared favorably with success rates at highly respected and renowned cancer centers around the country. It also showed that KP patients spent less time in the hospital and recuperated more quickly.

This was the first study to compare an HMO with academic health centers providing tertiary surgical care and was performed using data from five flagship medical centers, all ranked among the 18 best head and neck programs in the US. The study was published in the June 21, 2004 edition of the *Archives of Otolaryngology—Head & Neck Surgery*, a publication of JAMA & Archives Journal.⁴ ♦

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Barbara Caruso compiled this material from *California Wire*, *Partner News*, and other PMG newsletters and sources. To submit news of physician or PMG awards and recognitions, contact Ms Caruso at barbara.caruso@kp.org.

Learn Something

Try to learn something about everything
and everything about something.

— Thomas Henry Huxley, 1825-95, biologist



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Upcoming Symposia

National End-of-Life Care Symposium

Friday, March 4, 2005
Doubletree Hotel & Executive Meeting
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National Surgery Symposium

Wednesday-Friday
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Kaiser Permanente Northern California Ethics Department presents...



2005 Ethics Symposium Ethical Issues in End-of-Life Care

Saturday • March 5, 2005 • 8:00 AM - 4:30 PM

- **New location: Berkeley, California**
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Please join us at our 2005 symposium which will focus on common ethical issues arising during end-of-life care. We will explore such issues in relation to pain management, care of the unbefriended person without decision-making capacity, advance care planning, and clinical work in the nursing home and long-term-care facility. Other sessions will highlight ethical mediation of conflict resolution, modern concepts of medical futility, and problems defining death. Also, your attendance will earn you 6 hours of CME credit that can be applied to mandated requirements for either Geriatric Medicine or Pain Management/EOL. Register today to assure a place.

Conference Objectives

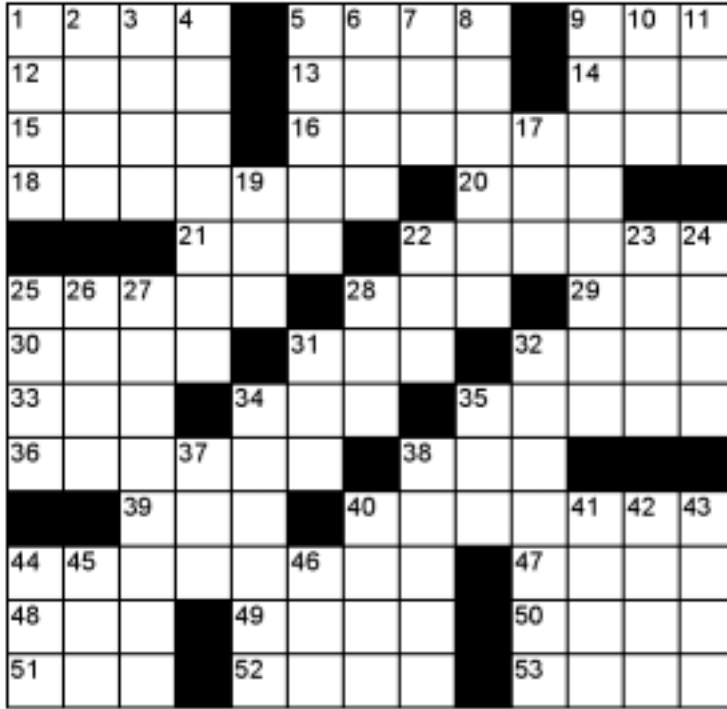
You will be able to:

- Make superior clinical decisions during end-of-life patient care because they can better identify and handle the ethical issues that arise.
- Articulate justifications in ethical decision-making during end-of-life for the unbefriended patient who lacks decision-making capacity.
- Analyze and apply ethical reasoning to ethical issues arising in end-of-life settings in the Nursing Home and Long-term Care facilities.
- Analyze and respond to pain management issues arising during end-of-life care.

For more information,
please email Dan Zwiches,
Conference Coordinator,
TPMG, Quality and
Operations Support,
at dan.zwiches@kp.org

Spotlight on "KP"

This is a tricky puzzle, BUT WAIT—Don't just turn the page! I'll give you a couple of hints, if you need them.



Created by Kenneth J Berniker, MD

Across

- 1 Leave out
- 5 Half (prefix)
- 9 Blood test that looks at a muscle enzyme
- 12 Prefix meaning "vessel"
- 13 River associated with Shakespeare
- 14 "That guy!"
- 15 Prefix meaning "peculiar"
- 16 Aches resulting from whiplash (2 words)
- 18 Writing tablets kept at hand in the office (2 words)
- 20 Related to work (abbr)
- 21 Writer Tan
- 22 Round, flat-topped hat
- 25 Mediterranean island near Naples
- 28 World chess champion Mikhail
- 29 Course of study for immigrant to the US (abbr)
- 30 Smell ___ (2 words)

- 31 Genius, for short
- 32 Prison
- 33 Alternate form (abbr)
- 34 Performing star Calloway
- 35 Moisten with cooking juices
- 36 Blood test often used to examine the liver, for short (2 words)
- 38 ___ semper tyrannis
- 39 Jean-__ Godard
- 40 Virtual necessity for your hiking or camping trip
- 44 Gasoline engine component (2 words)
- 47 Feel sore
- 48 Ad ___
- 49 College located in New Rochelle, NY
- 50 Notation indicating an unknown author
- 51 Chop off
- 52 Kiddies
- 53 Drug salesmen, familiarly

Down

- 1 Roman poet
- 2 Built
- 3 Egyptian goddess of fertility
- 4 Participated in (2 words)
- 5 Useful around the house
- 6 Nights preceding holidays
- 7 Soft-soled shoe originally worn by Indians, for short
- 8 Puddle of printing fluid (2 words)
- 9 Garbanzos
- 10 Piece of orthopedic hardware
- 11 Metric distances (abbr)
- 17 Nat'l org for roentgenologists (abbr)
- 19 Heart attack (abbr)
- 22 La ___, South American capital
- 23 "___ true?" (2 words)
- 24 Women's magazine
- 25 Vena ___
- 26 Inland Asian sea
- 27 Valuable Monopoly property (2 words)
- 28 ___-fib (orthopedic shorthand)
- 31 Existed
- 32 Early host of The Tonight Show
- 34 Control center for an airplane
- 35 Long-popular disposable pen
- 37 "Ben-___"
- 38 Epic tales
- 40 Try for an infield hit
- 41 Teen-agers' skin ailment
- 42 Lamb or veal cut
- 43 Kesey and Starr
- 44 ___ Na Na
- 45 Infection characterized by a rash
- 46 Restroom, in London slang

**Visit TPJ on the Web
for answers to this puzzle:
www.kp.org/permanentejournal**

Hints:

- 1. Six squares in the answer receive two letters each. In those squares, use the two letters in both the Across and Down words.
- 2. The same two letters go in each of the six special squares.

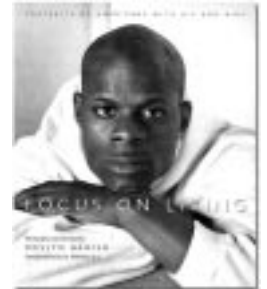


Kenneth J Berniker, MD, is a Board-certified Emergency Physician at the Vallejo Medical Center. He always enjoyed solving crossword and cryptic puzzles and now creates his own. The challenges in creating the puzzles include: completing the grid with usable answers and perhaps a theme, generating interesting clues of suitable difficulty, being error-free in framing questions and answers, and injecting humor. Have fun, and please send him your comments. E-mail: kenneth.berniker@kp.org.

Focus on Living: Portraits of Americans with HIV and AIDS

Photographs and interviews by Roslyn Banish; introduction by Paul M Volberding, MD

Review by Richard Wolitz, MD



Amherst: University of Massachusetts Press; 2003. ISBN: 1558493948 (cloth); \$50.00 ISBN: 1558493956 (paperback); \$24.95. 288 pages

More than 900,000 Americans are now living with HIV. This statistic adds little to our understanding of their lives. *Focus on Living* is about 40 people, each with a story about living with HIV. They come from different parts of the country and from different economic, racial, and ethnic backgrounds. They are young and old, gay, straight, bisexual, and transgender. Each has a reason for participating in this moving project by San Francisco photographer Roslyn Banish, who has compiled riveting portraits with verbatim interviews. Each subject takes the stage, as it were, to give out a message—for example, the person whose partner died without leaving a will—or simply tells that person's story so that others might not feel so alone in their struggle. Thus, each participant leaves a legacy.

This book was begun before the introduction of highly active antiretroviral therapy, several subjects' lives have since changed dramatically: Instead of planning to die, they are deciding how to live—in some cases going back to work, retraining for a more interesting career, or starting a family. Their words and pictures will inspire you and will broaden your understanding of this disease and its impact on our families and communities. By allowing HIV-positive people from all walks of life to speak openly, this book seeks to remove the stigma that contributes to the silence surrounding this disease.

An excellent introduction to *Focus on Living* is provided by Paul Volberding, MD, Professor and Vice Chair of the Department of Medicine, University of California at San Francisco, and Chief of the Medical Service at San Francisco Veterans Affairs Medical Center. Dr Volberding states, "To the doctor, a person becomes a patient following a diagnosis. To the person, however, the diagnosis is only one event in the context of an entire life."^{1:pxxi} This book chronicles the transformations—large or small—that can occur in people threatened by illness.

The story of a young woman who is an incest survivor, drug addict, and mother of three children is remarkable: After discovering that she was HIV-positive, she kicked her crack cocaine habit through Narcotics Anonymous and regained custody of her children through hard work and determination. After enduring her own childhood of abuse and neglect, she encourages her children to maintain their education, to read, and to better themselves. She says, "When my kids come visit me, they don't just sit and watch

TV. We bake cookies. We read. We draw and write ..."

"... I want ... to show my children the importance of education, to teach them African-American history, and to let them know the meaning behind the word *NO*. I want to be there to give my seven-year-old daughter self-confidence, to teach her to love herself."^{1:p55}

Also included is the moving story of a devoted grandmother who takes custody of her HIV-positive daughter's children, one of whom is HIV-infected at birth. The strength and activism of this woman is humbling and inspiring.

One of the most touching stories in *Focus on Living* is the story of a Vietnam veteran living in rural Minnesota who must decide whether to move to a city where he might receive more support from social service agencies and other people who are HIV-positive, or continue to live in the countryside near where he was raised. He decides to stay and to be open and honest with his neighbors and family members. His Amish neighbors know that he is HIV-positive, and are not judgmental. With the town's help, he opens and directs a drug-abuse-and-alcoholism recovery center, which is still going strong. "Somewhere in all of this," he states, "the desire to find peace is the most important thing—peace with people, with the animals, to have that sense of peace inside me."^{1:p201}

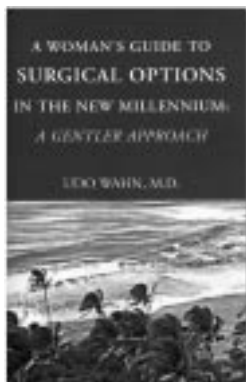
In another chapter, Cleve Jones (founder of the NAMES Project AIDS Memorial Quilt) asks, "Is there a family left in this country that doesn't know someone with AIDS? People have come out about their HIV status and it's very much like the gay struggle in that we win when we are open and honest about our lives. ... The people that I think have made the difference have been ordinary people with AIDS who are so courageous about revealing their status to their world. By doing so, they compelled and required this country and our society to move forward."^{1:p15}

Contemplating the hard facts regarding the worldwide impact of the AIDS epidemic, we may easily despair and become lost in numbers. What will keep our compassion strong is to maintain our focus on the person: We must begin and end with the person. This is why we must pay attention to their stories. ❖

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Richard Wolitz, MD, is a comprehensive ophthalmologist practicing at the KP San Francisco Medical Center since 1981. He has a special interest in treating HIV-associated eye diseases and has been an investigator in clinical trials for experimental drugs related to this field since 1984. E-mail: richard.wolitz@kp.org.



Philadelphia (PA): Xlibris Corp, 2004. ISBN: 1413444369 (paperback:). 120 pages. \$20.99

A Woman's Guide to Surgical Options in the New Millennium: A Gentler Approach

by Udo Wahn, MD

Review by Linda Starr-Seaman

Dr Udo Wahn, a gynecologist with the Southern California Permanente Medical Group in San Diego, has written a small, remarkably informative book about—and for—women who may be facing problems, the solution to which might involve gynecologic surgery. This book follows on the heels of his and Dr B Bekkar's successful, earlier book, *Your Guy's Guide to Gynecology*,¹ reviewed in the Summer 2000 issue of *The Permanente Journal*.² Dr Wahn's objective with his new book is to provide and explain various options that are available for women who seek understanding and guidance about what they can do when the usual answers or choices have failed to solve the problem. With sensitivity and wit, Dr Wahn speaks directly to women about their innermost worries. His lighthearted manner and clarity of expression should certainly help reduce a woman's fears and enable her to achieve a more realistic perspective.

Chapter One, "a review of female anatomy," is necessary to help the reader to better understand the doctor's further assessments and recommendations for treatment. Chapter Two guides readers through the most common gynecologic problems, especially those that weigh heavily on women's minds because these problems may require surgery. Chapter Three discusses treatment options underlying surgical solutions. Here, Dr Wahn starts his discussion by explaining the most common treatment approaches but then proceeds to explain several newer techniques, including those that are considered to be at the forefront of medicine. Each technique is well described using language that will be understood readily by any woman seeking more understanding about her options.

For instance, reading the discussion of different avenues by which to approach common problems, I was struck by Dr Wahn's perspective on menorrhagia, or heavy menstrual bleeding. His plan of action for this extremely annoying problem is tailored for each patient and gives consideration for future fertility. He explains that the initial approach often includes use of birth control pills to control bleeding. Although for some women, medications may decrease blood flow, Dr Wahn proceeds to explain carefully that in other women, dilatation and curettage may be required to

provide relief. Dr Wahn continues by explaining that if these methods are not effective, a woman may now consider the possible alternative of endometrial ablation instead of the oft-dreaded hysterectomy. This approach has other desirable effects, ie, less menstrual cramping and fewer symptoms of premenstrual syndrome (PMS). Various ablation methods are discussed. Each technique is shown to have its own advantages as well as disadvantages for both patient and doctor. Use of a well-selected approach—understood by a now-knowledgeable patient—often makes for a happier woman and improves the quality of her life substantially.

Other discussions in the book consider urinary incontinence and fibroids, again describing newer solutions that are less disruptive than conventional hysterectomy. Among these new, less invasive techniques discussed are uterine artery embolization, myomectomy, hysteroscopic surgery, and laparoscopic hysterectomy.

Overall, Dr Wahn discusses some of the most delicate physical concerns shared by women; and this feature alone will help many women who secretly suffer, needlessly thinking that theirs is an isolated case. Dr Wahn displays a deeply understanding approach toward the complex issues presented by female anatomy and psyche and offers clear approaches to common gynecologic problems experienced by women during their lifetime. The author obviously cares about women, and this is shown by the caring and compassionate manner with which he presents his discussions. The intellectual level of the book will appeal to the intelligent woman of today. An important resource, this book will undoubtedly interest any woman who prefers to have some prior understanding before finally walking into her gynecologist's office—after having fretted, agonized, and procrastinated until forced to face the unavoidable reality that she *must* see her doctor. ❖

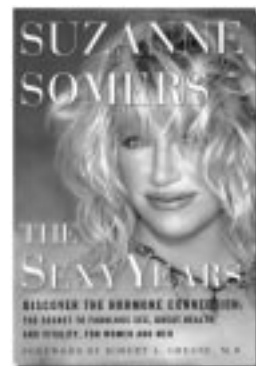
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Linda Starr-Seaman works for Scripps Rehabilitation Services, where she develops and manages programs for those affected by neurological conditions. As a Licensed Clinical Social Worker in private practice, she specializes in weight management and lifestyle coaching. E-mail: lstarlifestyles@aol.com.

The Sexy Years: Discover the Hormone Connection— The Secret to Fabulous Sex, Great Health, and Vitality, for Women and Men

by Suzanne Somers



New York: Crown
Publishers; 2004. ISBN:
0609607219. 284 pages;
\$17.00

Review by Valerie Ozsu, MSN, CNM, NPIII

When one of my patients told me about the book *The Sexy Years*, by Suzanne Somers, I was suspicious. Hearing about this book from three patients in one day, however, I became curious as to what these professional women were reading. My first reaction was, How can the “Thigh Master Queen” be an expert on hormones? The book’s title itself leads one to think that looking good and having sexual appeal were what Ms Somers and my patients were trying to achieve. After purchasing a copy for myself, I read the book and have determined that despite flaws, the book’s overall intent may not be superficial—as the main title suggests.

Portraying herself as a goal-oriented woman of strength, Suzanne Somers describes her poor beginnings and struggling years as an actress and single parent. Hitting menopause, she entered the passage in her life which she describes as meeting battle with “the Seven Dwarves—Itchy, Bitchy, Bloated, Sleepy, Sweaty, Forgetful, and All Dried Up.” She describes her diagnosis of cancer and medical procedures received (including biopsy procedures and surgery) with all the drama of a well-written screenplay. As a professional woman trained in a field which focuses on appearance, Somers was determined, while battling breast cancer, to defeat her seven dwarf-enemies by continuing to use bioidentical hormones such as estrogen and progesterone made in the laboratory from precursors of soybeans and wild yams and then micronized for absorption through the stomach into the bloodstream.

Ms Somers frequently quotes endocrinologist Diane Schwarzbein, MD, author of *Schwarzbein Principle* and *The Schwarzbein Principle II*; and obstetrician-gynecologist Uzzi Reiss, MD, author of *Natural Hormone Balance*. Through interviews with these two physicians on the differences between synthetic and bioidentical hormones, Somers tells us how diet, exercise, and stress reduction played an important part in her feeling well and how these factors continue to be part of the post-surgical healing process for her as a breast cancer patient. She defends her decisions to stop tamoxifen therapy and instead to pursue bioidentical hormone

therapy as prescribed by Drs Schwarzbein and Reiss. Ms Somers incorporates personal and miscellaneous stories of women who chose to use bioidentical hormones, although she fails to mention some of the more controversial aspects of bioidentical hormones, such as the lack of good research to show that they are any safer than conventional hormone replacement therapy.

Then Somers’ discussions of the different bioidentical hormones and dosages become unbelievable opinions which medically trained or curious intellectuals would have to substantiate with other literature. She quotes statistics, such as heart attack rates in women, which may or may not be true; no source for these statistics is cited. Further detracting from its creative exposition, her book quotes and lists information without crediting her sources, and she doesn’t always accurately cite the scientific literature used in defense of her statements. For example, quotations from Kaiser Permanente researcher Bruce Ettinger, MD, and University of Southern California researcher Howard Hodis, MD, are neither credited nor listed in the bibliography to provide the reader with references necessary for further research.

The discussion then jumps to discussing antiaging regimens, menopause, maintenance of sexual desire and performance, her recovery from breast cancer, and her husband’s male menopause. Perhaps her intention is to convey a theory that antiaging regimens, female and male menopause, and cancer prevention are all interconnected.

Ms Somers’ book is not the only one available on the market that has its own biases but are popular among women who believe that the medical establishment is currently doing less than possible to promote women’s health, understand hormonal changes, and develop antiaging regimens.

For example, Dr John Lee’s book, *What Your Doctor May Not Tell you About Menopause*, describes the history of Premarin with its introduction and marketing by Dr Robert A Wilson here in the United States. Dr Lee pioneered the use of transdermal progesterone

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cream and bioidentical hormones which can be obtained over the counter in doses much less than prescribed in the professional community. Dr Lee focuses on progesterone's many benefits to protect our health and introduces the reader to the concept of xenoestrogens (petrochemicals with toxic estrogen-like activity in our bodies). Many of our present-day diseases, according to Lee, are caused by these xenoestrogens from our environment (plastics that are a byproduct of petroleum, the pollution of our water system by chemicals, pesticides in our foods, etc).

On the other hand, Elizabeth Vliet, MD, author of three books, is outspoken in her contempt for the male physicians whom she feels dominate the medical profession, and she sides with women as hormonal victims who have been neglected for years. Her premise is that women need more estrogen, and she later lists out a recipe (*Women, Weight and Hormones*) for women to maintain their weight and health as they age through "natural" hormonal balance achieved by testosterone and DHEA intake as well as the bioavailable estrogens and progesterones for women.

These books, with others expounding the role of cortisol and its protective factors (eg, James Wilson's *Adrenal Fatigue*), are well researched with complete bibliographies so that even if one does not agree to the merits of these books, resources are cited to support or refute these author's claims.

The problems inherent in these books are that they contradict themselves and each other. However, they do offer information for women to choose from in order to continue their quest for health and energy. The major problem is that none of these books contains clinically based evidence that these hormonal regimens are any safer than those outlined by the Women's Health Initiative. However, because compounded hormones cannot be patented and because no money can be made by the \$300-billion-dollar pharmaceutical industry, testing may have to be done by a compounding pharmacy willing to foot the bill and take on "Big Brother."

Some of these books discuss hormones and health, are well written, and suggest ways to help patients make decisions for improving their health and hormone balance. A few such books are listed at the end of this article. The authors of these books offer their methods and treatments for helping women move through menopause while managing its symptoms.

Among these books and despite flaws and inaccuracies, *The Sexy Years* deserves special merit: It attempts to motivate women and men to assert their rights to

help themselves and their families achieve better health and health care choices. The women I know who read this book are educated, highly motivated professional women who contribute to our society through their work.

Unfortunately, Somers limits her priorities to being sexually appealing. Most of the women I work with have a more expanded view of the world; being glamorous isn't their primary goal. I therefore must disagree with the hedonistic aspects of *The Sexy Years*, but I applaud Ms Somers' efforts to enlighten women. The significance of this book lies in its popularity, which we have noted in our clinic by the women coming in questioning their options for hormone therapy. ♦

Recommended Reading

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- Barbach L. *The pause: positive approaches to perimenopause and menopause*. Rev ed. New York: Plume; 2000.
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- Vliet EL. *Screaming to be heard! Hormonal connections women suspect—and doctors ignore*. New York: M Evans; 1995.
- Vliet EL. *Women, weight, and hormones: a weight-loss plan for women over 35*. New York: M Evans; 2001.
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- Wright JV, Morgenthaler J. *Natural hormone replacement for women over 45*. Petaluma (CA): Smart Publications; 1997.

Recommended Web Sites

- Women's Health Initiative [Web site]. Available from: www.nhlbi.nih.gov/whi/ (accessed August 10, 2004).
- Revival Soy. Soy & menopause, perimenopause, & postmenopause [article]. Available from: www.revivalsoy.com/whysoy/article.html?article=menopause&session=revivalsoy:A277406F1431025D43iNW15DB6FD (accessed August 10, 2004).

Prostitution, Trafficking, and Traumatic Stress

By Melissa Farley, PhD, Editor

Review by Stephen Stolzberg, MD

The opening chapter of this multiple-author book is titled, “Hidden in Plain Sight”—a title that would have been suitable for the book itself.

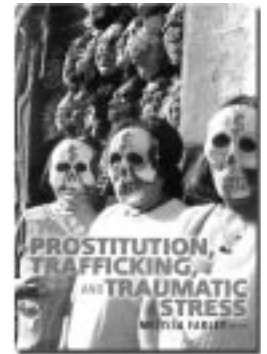
While gay marriage has inspired polemics and even consideration of a possible constitutional amendment, the plight of prostitutes and other so-called “sex workers” is not the stuff of front pages. For instance, the following three articles appeared inside three September issues of the *New York Times* and the *Financial Times*: “Tokyo’s red light district faces a ritual cleansing,”¹ “Determining the future of a girl with a past: is the answer to child prostitution forced counseling or incarceration?”² and “Bid to decriminalize prostitution in Berkeley.”³ The first article manages to avoid using the word prostitution and concludes with a quote from an author who has written about the Kabuchiko district: “People here work hard for their living and they love this area If we sweep all this clean, what will happen to all these wonderful people?”¹ The second article talks about a 12-year-old girl who was arrested and charged with prostitution and the year of “wringing ... [involving] Family Court, ... prosecutors, judges, dueling therapists, court appointed lawyers, child welfare authorities, a representative of the state’s juvenile jails, and a [charity] that provides housing for troubled adolescents.”² The third article depicts the conflict of opinions provoked by Robyn Few, a former prostitute who put an initiative on the ballot in Berkeley, California, to make prosecution of prostitution a low priority for the city’s police. The editor of this book, Melissa Farley, is a San Francisco psychologist now retired after many years with The Permanente Medical Group and active with an organization called Prostitution Research and Education. She opposes Ms Few. Dr Farley says, “This is an ordinance that reflects the interests of johns and pimps”³ Dr Farley evidently disagrees with Dr Barbara Brents, a University of Nevada sociology professor, who believes that, “In a perfect world, there is no reason women can’t set up shop [as prostitutes] and run their own businesses the same way a therapist would.”³

... society is more interested in protecting the health and welfare of clients than of these “sex workers” ...

The 17-chapter, 33-author book edited by Dr Farley (and edited and published as a volume of the *Journal of Trauma Practice*⁴) opens with a dedication to the executed prostitute-turned-mass-murderer, Aileen Carol Wuornos but does not explain for the uninitiated who she was. Most of the chapters consist of case studies or surveys of “sex workers” (a term the authors condemn) in many different countries on six continents. Few surprises are to be found: The authors conclude that these women entered prostitution in their teens; were neglected and abused as children; work under conditions that are dangerous, disgusting, and demeaning; lack the economic, educational, or emotional resources to leave their virtual enslavement; are threatened by the law, whether as illegal immigrants or as criminals; use drugs to lessen their emotional pain; and become dependent on these drugs. The book also indicates that society is more interested in protecting the health and welfare of clients than of these “sex workers” and that pornography and prostitution are different aspects of what was described by Yutaka Takehana (the deputy

ordered by Tokyo’s governor to clean up the city’s “red light” district) as “ugly things related to sex [a] kind of perverted culture.”¹ The book reports that men as well as women can be prostituted, that a global marketplace exists for sex, and that governments are as likely to identify with the needs of the sex industry as with its victims. One of the authors refers to prostitution as “a system of gender-based totalitarianism,”^{4:p172} but most view it from a free-market perspective: Some people are willing and able to pay to satisfy their sexual appetites, and others hire, kidnap, or enslave people to provide this satisfaction.

The book includes four chapters that focus on measures designed to help women leave prostitution. The needs of these women are daunting: The prostitution survivor needs “a wholesale re-creation of her entire life. She must find shelter, protect herself from both intimates and strangers, manage legal vulnerabilities, face loneliness, and obtain adequate financial resources.”^{4:p304} The chapter about Social Security dis-



Binghamton (NY):
Haworth Maltreatment
and Trauma Press; 2003.
361 pages. ISBN
0789023784 (hardback);
\$49.95. ISBN 0789023792
(paper); \$29.95.

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ability points to a paradox: A woman may be denied benefits because her prostitution is considered to be gainful employment! Two successful small programs described—one in Victoria, British Columbia, and one in San Francisco—have managed to help a few women to recreate their lives.

The final chapter argues in favor of a Swedish law that targets “male demand for prostitution”^{4:p327} instead of either legalizing or decriminalizing it. As a final step, the book recommends that governments “seize assets of sex businesses and then use these funds to provide real alternatives for women in prostitution [and provide] economic resources that enable women to improve their lives.”^{4:p329}

Dr Farley’s preface to the book says that “[t]he internal ravages of prostitution have not been well understood or analyzed in psychology,”^{4:pxi} but no evidence is given for this statement. This book does not attempt to compare the psychology of prostitutes to that of other mistreated persons, eg, war orphans, incest victims, illegal immigrants working in sweatshops, or prison inmates. A possibility more likely than not is that all these groups share much the same psychopathology.

The book’s title is printed on the cover in bold red print superimposed on a glossy picture of three women wearing death’s headmasks. This cover design is more suitable for a sensational tabloid than for an academic

publication, yet the text is no more titillating than the average social psychology publication. Thus, prospective readers cannot tell this book by its cover. *Prostitution, Trafficking and Traumatic Stress* is neither exploitative-sensational nor scientific-clinical; it is a political tract.

The book supports the idea that the only worthwhile public policy regarding prostitution is criminal prosecution of customers and owners. The authors argue that the policy of decriminalizing prostitution plays into the hands of the oppressors. The Swedish governmental experiment targeting customers may be effective, but the book provides no critical analysis of this issue. The descriptions and tabulations of the physical, mental, economic, and legal sides of prostitution could be a primer for college students who have no prior information about the issues. Every chapter is bolstered by references. ❖

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Pain and Understanding

Your pain is the breaking of the shell that encloses your understanding.

— Kahlil Gibran, 1883-1931, mystic, poet, and artist

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Section A.

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Article 1. Mammography Screening: Addressing the Myths or Reasons for Noncompliance

Strategies that do not increase mammography screening include:

- providing patient education explaining that a negative family history for breast cancer does not mean protection from getting it
- prompts (flags) to the clinician during the medical visit for routine care
- phone calls to women to remind them of the need for a mammogram and to schedule the appointment
- requiring physicians to perform clinical breast examinations before scheduling mammography

Appropriate reasons women choose not to have a mammogram include:

- they fear it will interfere with their pacemaker
- they are afraid of finding a lump
- they think their breasts are too small
- there is too much controversy over the screening frequency
- having had a bilateral prophylactic mastectomy

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Article 2. Family Violence Prevention Program: Another Way to Save a Life

Which of the following components are part of the Systems-Model approach to IPV intervention?

- community linkages
- on-site mental health services
- supportive environment (posters, brochures)
- screening and referral by a clinician
- all of the above

Which statement is INCORRECT? On-site services for patients coping with domestic abuse are usually provided by mental health clinicians and include:

- danger assessment
- safety assessment
- long-term psychotherapy
- information about community resources

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Article 3. Fighting Breast Cancer: A Call for a New Paradigm

Which of the following is INCORRECT? Primary breast cancer chemoprevention with Tamoxifen is:

- supported by an evidence-based guideline of the USPSTF
- reduces the incidence of breast cancer by 49% in high-risk women
- is FDA-approved for this indication
- is appropriate for all women with a Gail score (five-year breast cancer risk) above 1.6%

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(Continued from previous page)

According to the author and Table 1, which of the following patients would not be a good candidate for Tamoxifen chemoprophylaxis?

- a. white woman, aged 40 years, intact uterus, Gail score 1.6
- b. black woman, aged 45 years, hysterectomy, Gail score 1.6
- c. black woman, aged 40 years, intact uterus, Gail score 1.6
- d. black woman, aged 65 years, hysterectomy, Gail score 3.7

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Article 4. Sentinel Lymph Node Biopsy for Patients with Breast Cancer: Five-Year Experience

Sentinel node biopsy for breast cancer provides patient advantage because of the following reasons:

- a. it is less expensive than formal axillary dissection
- b. it allows more accurate staging with less morbidity
- c. there is no associated pain with the procedure
- d. the procedure is easily provided by all surgeons

The learning curve for sentinel lymph node biopsy is:

- a. 5-10 cases for optimal accuracy
- b. 10-20 cases for optimal accuracy
- c. 20-30 cases for optimal accuracy
- d. most surgeons can do the operation without proctoring if they have long experience doing full axillary dissection

Objectives

1) to inculcate the use of evidence-based medicine as part of the science of medicine. 2) to stress the art of medicine via enhanced patient physician communication, improved care experience for patients, and more satisfying care giving experience for physicians and staff through better teamwork. 3) to review appropriate updates on the diagnosis and treatment of clinical conditions. 4) to describe infrastructure and systems improvements that lead to improvements in outcomes and patient care experiences.

Section B.

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

	Article 1					Article 2					Article 3					Article 4				
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What change(s), if any, do you plan to make in your practice as a result of reading these articles?

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