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## ON THE COVER

**“Tahoe Hoarfrost”** by Robert W Hogan, MD

This photograph was taken near Heavenly Resort in South Lake Tahoe, CA. The unique effects of spontaneously condensed water vapor, at various temperatures, are often featured in Dr Hogan’s artwork.

Dr Hogan is an Associate Editor of *The Permanente Journal*, teaches at the University of California San Diego School of Medicine, and is an Emeritus Physician with the Southern California Permanente Medical Group.

95 BOOK REVIEW

96 CME EVALUATION FORM

## ORIGINAL RESEARCH & CONTRIBUTIONS

- 4 Cognitive Complexity of the Medical Record Is a Risk Factor for Major Adverse Events.** David Roberson, MD, FACS; Michael Connell, EdD; Shay Dillis, RN, MSN; Kimberlee Gauvreau, PhD; Rebecca Gore; Elaina Heagerty, MPH; Kathy Jenkins, MD, MPH; Lin Ma, MS; Amy Maurer, MA; Jessica Stephenson; Margot Schwartz, MPH

Patients in tertiary care hospitals are more complex than in the past, but the implications of this are poorly understood as “patient complexity” has been difficult to quantify. A “Complexity Ruler” was validated and tested in a case-control model of all patients with major adverse events at a tertiary care pediatric hospital from 2005 to 2006. Above empirically derived cutoffs, 24-hour and lifetime cognitive complexity of the medical records were risk factors for major adverse events.

- 9 Immunomodulatory Agents and Risk of Postpartum Multiple Sclerosis Relapses.** Brandon Emet Beaber, MD; Margaret D Chi, MPH; Sonu Malik Brara, MD; Jian Liang Zhang, MS; Annette M Langer-Gould, MD, PhD

Of 80 women who breastfed little or not at all, 55 (69%) resumed treatment for multiple sclerosis within 1 year postpartum, of whom 26 (47%) relapsed within 6 months postpartum. Later in the postpartum year, those who resumed treatment early had fewer relapses. Starting treatment with interferon beta or glatiramer acetate within 2 weeks postpartum does not reduce the risk of postpartum relapse of multiple sclerosis but may reduce the risk of subsequent relapses in the postpartum year.

- 14 Accuracy of National Surgery Quality Improvement Program Models in Predicting Postoperative Morbidity in Patients Undergoing Colectomy.**

Jeffrey A Neale, MD, FACS, FASCRS; Craig Reickert, MD, FACS, FASCRS; Andrew Swartz; Subhash Reddy, MBBS; Maher A Abbas, MD, FACS, FASCRS; Ilan Rubinfeld, MD, MBA, FACS

Although National Surgery Quality Improvement Program (NSQIP)-generated morbidities used to create area under the receiver operator curves (AUROCs) are accurate for patients in an overall surgical model, predictive models for morbidity are marginal for laparoscopic and open abdominal colectomies. NSQIP risk models tend to emphasize comorbidities rather than intraoperative details or technical aspects of colonic resections.

- 19 Effect of Transcendental Meditation on Employee Stress, Depression, and Burnout: A Randomized Controlled Study.** Charles Elder, MD, MPH, FACP; Sanford Nidich, EdD; Francis Moriarty, EdD; Randi Nidich, EdD

A total of 40 secondary schoolteachers and support staff at the Bennington School in Vermont, a therapeutic school for children with behavioral problems, were randomly assigned to either practice of the Transcendental Meditation program or a wait-list control group. The Transcendental Meditation program was effective in reducing psychological distress in teachers and support staff working in a therapeutic school for students with behavioral problems.

- 25 Weight Patterns Before and After Total Joint Arthroplasty and Characteristics Associated with Weight Change.**

Maria CS Inacio, PhD; Donna Kritz Silverstein, PhD; Rema Raman, PhD; Caroline A Macera, PhD; Jeanne F Nichols, PhD; Richard A Shaffer, PhD; Donald Fithian, MD

Of 30,632 patients with total joint arthroplasty identified, 34.5% underwent total hip arthroplasty and 65.5% had total knee arthroplasty. Most patients remained the same weight during the year before and after the procedure. Before and after total hip arthroplasty, men were less likely to lose or gain weight than were women. Older patients were less likely to gain weight. Specific groups are more susceptible to weight change and could benefit from weight management interventions.

### Implementation Study

- 33 Highly Reliable Procedural Teams: The Journey to Spread the Universal Protocol in Diagnostic Imaging.**

**CME** Julie Ross, MBA, MPH; Debby Wolf, RN, MBA; Kimberly Reece, MD

The Joint Commission’s Universal Protocol has been widely implemented in surgical settings since publication in 2003, and the elements are applied to procedures occurring in other health care arenas, in particular, diagnostic imaging. The teams underwent human factors training and then adapted key interventions used in surgical suites to their workflows. Perception of the safety climate improved 25% in interventional radiology and 4.5% in mammography. Perception of the teamwork climate decreased 5.4% in interventional radiology and 16.6% in mammography. The study reveals unexpected challenges and requires long-term effort and focus.

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## Special Report

**38 Complex Case Conferences Associated with Reduced Hospital Admissions for High-Risk Patients with Multiple Comorbidities.**

**CME** Philip Tusso, MD, FACP; Heather L Watson, MBA, CHM; Lynn Garofalo-Wright, DPPD, MHA; Gail Lindsay, RN, MA; Ana Jackson, PhD; Maria Taitano, MD; Sandra Koyama, MD; Michael Kanter, MD

The authors studied the effect person-focused care may have on reducing avoidable admissions to the hospital. Observed-over-expected hospital readmission rates were lowest for patients receiving a postdischarge visit with a home health nurse and a follow-up visit with their physician (0.54), compared with solely a physician visit (0.81), home health visit (1.2), or phone call (1.55). Various social issues may contribute to hospital readmissions, including caregiver knowledge, ability to care for oneself at home, and issues related to medications (adherence, ability to pay, and knowledge about potential side effects).

## Special Report

**43 Early Detection of Breast Cancer Using a Self-Referral Mammography Process: The Kaiser Permanente Northwest 20-Year History.**

David Moiel, MD; John Thompson, MD

Ninety-five percent of women later found to have breast cancer were seen an average of 5 times in medical offices in the year preceding diagnosis. By 2011, almost 50% of all mammograms were scheduled using the self-referral process, with more than 25% of cancers diagnosed through this process that year. As the number of screening tests performed is used as the sole measure of screening effectiveness, segments of the at-risk population are likely to be missed.

## REVIEW ARTICLES

**49 Relationship between Tumor Necrosis Factor- $\alpha$  Inhibitors and Cardiovascular Disease in Psoriasis: A Review**

Thao Nguyen, MD; Jashin J Wu, MD

Psoriasis, a cutaneous disease that is increasingly recognized as a systemic inflammatory process, is associated with an increased risk for the development of cardiovascular disease. The authors review the evidence in support of the beneficial effects of tumor necrosis factor- $\alpha$  inhibitors on cardiovascular health.

**55 Investigation of Women with Postmenopausal Uterine Bleeding: Clinical Practice Recommendations.**

**CME** Malcolm G Munro, MD, FRCS(c), FACOG; The Southern California Permanente Medical Group's Abnormal Uterine Bleeding Working Group

Postmenopausal uterine bleeding can be spontaneous or related to ovarian hormone replacement therapy or to the use of selective estrogen receptor modulators. The guideline development group determined that, for initial management of spontaneous postmenopausal bleeding, primary assessment may be with either endometrial sampling or transvaginal ultrasonography. Guidelines are also provided for patients receiving selective estrogen receptor modulators or hormone replacement therapy.

**71 The Role of Eye Movement Desensitization and Reprocessing (EMDR) Therapy in Medicine: Addressing the Psychological and Physical Symptoms Stemming from Adverse Life Experiences.**

Francine Shapiro, PhD

A substantial body of research shows that adverse life experiences contribute to both psychological and biomedical pathology. Twenty-four randomized controlled trials support the positive effects of eye movement desensitization and reprocessing therapy in the treatment of emotional trauma and other adverse life experiences relevant to clinical practice. Twelve randomized studies of the eye movement component noted rapid decreases in negative emotions and/or vividness of disturbing images.

**78 Pay for Performance for Salaried Health Care Providers: Methodology, Challenges, and Pitfalls.**

**CME** John R Britton, MD

Pay for performance has been recommended by the Institute of Medicine as an incentive to improve the quality of health care, but it is important to separate provider contributions from other influencing factors within the health care system. If appropriate methodology is not used, much time, effort, and money may be expended in gathering data that may be potentially misleading or even useless, such that good performance may go unrecognized and mediocre performance may be rewarded.

## COMMENTARY

## Narrative Medicine

**87 Eluding Meaninglessness: A Note to Self in Regard to Camus, Critical Care, and the Absurd.**

Thomas John Papadimos, MD, MPH

The author presents a medical narrative, as a catharsis, regarding Albert Camus's *The Myth of Sisyphus* in an attempt to elude meaninglessness in his difficult everyday practice of critical care medicine. It is well documented that physicians who practice critical care medicine are subject to burnout. A third alternative to Camus's faith in the divine or to commit suicide is the acceptance of a life without prima facie evidence of purpose and meaning.

## EDITORIAL

**90 Person-Focused Care at Kaiser Permanente.**

Jim Bellows, PhD; Scott Young, MD; Alide Chase, MS

Patient-focused care has been described as an extension of patient-centered care, recognizing that patients' medical needs are best understood and addressed in the context of their entire lives, including their life goals and social, economic, emotional, and spiritual functioning. The authors describe emerging examples in several areas: interdisciplinary care planning, behavior change, social care, patient-reported outcome measures, and *Total Health*.

## NARRATIVE MEDICINE

**92 The Man In The Mirror: Reflections On Dealing With A Family Member's Dementia.**

Phillip LaBorie

Original artwork accompanies this reflection of a man's care of his brother with dementia, complicated by severe cardiovascular and pulmonary disease. "The good news is that all of his symptoms and stresses disappear when we're making art together."

## SOUL OF THE HEALER

## Original Visual Art

**24 "Los Angeles Harbor Lighthouse (Angel's Gate), San Pedro, California"**  
Anil Thomas, MD

**32 "Erice"**  
Samuel H Glassner, MD

**86 "Sunset at Sukhna Lake, Chandigarh, India"**  
Vishal Sharma, MD, DM

**94 "The Man in the Mirror"**  
Phillip LaBorie

ONLINE ONLY



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## ORIGINAL RESEARCH & CONTRIBUTIONS

### Assessment of Quality of Life in Patients with Chronic Oral Mucosal Diseases: A Questionnaire-Based Study.

Bijina Rajan, BDS; Junaid Ahmed, BDS, MDS; Nandita Shenoy, BDS, MDS; Ceena Denny, BDS, MDS; Ravikiran Ongole, BDS, MDS; Almas Binnal, BDS, MDS

Seventy patients seen in the Department of Oral Medicine and Radiology with oral lichen planus, recurrent aphthous ulcers, and pemphigus were included in the study. Patients older than age 35 years reported significantly lower quality of life (QOL) in the domain of social and emotional status. Significant age-related differences in QOL were not observed in other domains. Men reported significantly better oral health-related QOL than women did in pain and functional limitation.

### The Economic Impact of Hospitalization for Diabetic Foot Infections in a Caribbean Nation.

Shamir O Cawich, MBBS, DM; Shariful Islam, MBBS; Seetharaman Hariharan, MBBS, FRCA; Patrick Harnarayan, MBBS, FRCS; Steve Budhooram, MBBS, FRCA; Shivaa Ramsewak, MBBS; Vijay Naraynsingh, MBBS, FRCS

There were 446 patients hospitalized with diabetic foot infections, yielding approximately 0.75% annual risk for patients with diabetes. A total of US \$13,922,178 were spent to treat diabetic foot infections in these 446 patients during 1 year at this hospital. Each year, the government of Trinidad and Tobago spends US \$85 million, or 0.4% of their gross domestic product, solely to treat patients hospitalized for diabetic foot infections. With this level of national expenditure and the anticipated increase in the prevalence of diabetes, it is necessary to revive the call for investment in preventive public health strategies.

## CASE STUDIES

### Plantar Fasciitis: A Concise Review.

Emily N Schwartz, MD; John Su, MD

One of the challenges in the treatment of plantar fasciitis is that there are very few high-quality studies comparing different treatment modalities to guide evidence-based management. Current literature suggests a change to the way that plantar fasciitis is managed. This article reviews the most current literature on plantar fasciitis and showcases recommended treatment guidelines.

## LETTERS TO THE EDITOR

### Think of Salt in Preventing Falls in the Geriatric Population

### Spodick's Sign: A Helpful Electrocardiographic Clue to the Diagnosis of Acute Pericarditis

## CLINICAL MEDICINE

### ECG Diagnosis: The Effect of Ionized Serum Calcium Levels on Electrocardiogram.

Jonathan D Gardner, MD; Joe B Calkins, Jr, MD, FACC, FACP, FASE; Glen E Garrison, MD, FACC

High and low levels of ionized serum calcium concentration can produce characteristic changes on the electrocardiogram. These changes are almost entirely limited to the duration of the ST segment with no change in the QRS complexes or T waves. High ionized serum calcium shortens the ST segment, and low ionized serum calcium prolongs the ST segment. Two common clinical scenarios are presented.

### Image Diagnosis: Sudden Paraplegia in Abdominal Aortic Thrombosis.

Alexandre Costa, MD; Andreia Veiga, MD

A 79-year-old woman with a medical history of hypertension and cardiac surgery for mitral valve repair was seen in the Emergency Department after falling to the floor in her bedroom. Acute abdominal aortic occlusion is an uncommon condition frequently resulting from saddle embolism or thrombus of an atherosclerotic plaque. Sudden neurologic symptoms can occur.

### Image Diagnosis: Spontaneous Hematoma from Scurvy.

Diane Apostolakos, MD, MS; Lee O Halvorsen, MD

A 58-year-old alcoholic man presents with pain, swelling, and bruising of his right leg, without history of trauma or injury. He had had frequent spontaneous hematomas in his legs. This patient drank a 1.75 liter bottle of vodka daily, smoked cigarettes, and ate mostly precooked hash brown potatoes, pasta, and occasional canned tuna. He did not eat fresh vegetables and rarely ate fruit, leading to Vitamin C deficiency.

## NURSING RESEARCH & PRACTICE

### Research

### Self-Reported Activities and Outcomes of Ambulatory Care Staff Registered Nurses:

**An Exploration.** June L Rondinelli, RN, MSN, CNS; Anna K Omery, RN, DNSc, NEA-BC; Cecelia L Crawford, RN, DNP; Joyce A Johnson, PhD, RN-BC

Ambulatory care is a growing field of nursing practice. There has been an ongoing effort to identify the desired role of the staff registered nurses (RN) in outpatient care and provide linkages to preferred outcomes. Survey respondents were ambulatory care staff RNs from various primary and specialty care clinics (n = 187) in an integrated health care organization in Southern California. This research study supports what ambulatory care RNs say they are doing: daily, diverse, and complex patient care activities that influence multiple relevant patient outcomes.

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