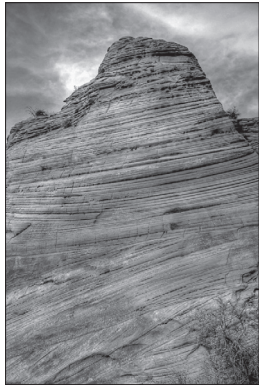


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ON THE COVER:
Rock of Ages
by Sally J Cullen, MD, MS

This photograph was taken in Zion National Park in Utah. The monument pictured was formed by millennia of cascading water cutting through and eroding the sedimented and lithified Navajo Sandstone. The incredible rock layers of Zion are part of a system stretching from Bryce Canyon to the Grand Canyon.

Dr Cullen retired in 2012 after more than 32 years practicing medicine. She now uses photography to show how our national parks are our great heritage, and how they can be our great legacy if we protect and celebrate them. More of Dr Cullen's photography may be seen at: www.myparkphotos.com/property/SallyCullen.html.

96 CME EVALUATION FORM

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www.thepermanentejournal.org
ISSN 1552-5767

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ORIGINAL RESEARCH & CONTRIBUTIONS

4 Financial Implications of the Continuity of Primary Care.

Marcus J Hollander, MA, MSc, PhD;
Helena Kadlec, MA, PhD

Using British Columbia Ministry of Health administrative databases for fiscal year 2010-2011 and generalized linear models, cost ratios were estimated for 10 cost-related predictor variables, including patients' attachment to the practice. Across 8 medical conditions patients' attachment to the practice had the strongest relationship to costs. Higher attachment was associated with lower costs. Extrapolation of the findings indicated an increase of 5% in overall attachment level for the selected high-care-needs patients and could have resulted in an estimated cost avoidance of \$142 million Canadian for fiscal year 2010-2011.

11 Efficacy and Utility of Phone Call Follow-up after Pediatric General Surgery versus Traditional Clinic Follow-up.

Kevin Fischer, MSN, APRN; Virginia Hogan, MSN, APRN; Alesha Jager, MSN, APRN; Daniel von Allmen, MD

The authors conducted a retrospective review of the charts of patients in a large academic practice who underwent select surgical procedures and they contacted those patients' families by telephone 2 weeks after intervention. Six months after implementation, overall postoperative appointments decreased from 55.5% to 35.5%, and 62.6% of patients had a successful postoperative phone call follow-up. A satisfaction survey revealed that 93% of patients were highly satisfied.

15 Elderly Patients with Glioblastoma Multiforme Treated with Concurrent Temozolomide and Standard- versus Abbreviated-Course Radiotherapy.

Christine N Chang-Halpenny, MD; Jekwon Yeh, MD; Winston W Lien, MD

This study reviewed outcomes from 2003 to 2012 of elderly patients aged ≥ 65 with newly diagnosed glioblastoma multiforme treated with concurrent temozolomide and either standard-course radiotherapy (SRT) or abbreviated-course radiotherapy. Multivariate analysis of the entire cohort found those patients receiving SRT, Karnofsky Performance Score of 70 or higher, and more extensive surgery were associated with longer survival time.

22 Risk Factors for Neck Hematoma after Thyroid or Parathyroid Surgery: Ten-Year Analysis of the Nationwide Inpatient Sample Database.

Ahmed Dehal, MD, MPH; Ali Abbas, MD, MPH; Farabi Hussain, MD; Samir Johna, MD

Postoperative neck hematoma is a well-known complication of thyroid and parathyroid surgery. A retrospective analysis was performed of hospital discharge data

from the Nationwide Inpatient Sample database of 147,344 thyroid and parathyroid operations performed nationwide between 2000 and 2009. Overall incidence of postoperative neck hematoma was 1.5%. In multivariate analysis, \geq age 65, male sex, African-American race, being from the South, a comorbidity score of > 3 , history of alcohol abuse, Graves disease, and substernal thyroidectomy were associated with a higher risk of neck hematoma.

30 Upstream Discussion Provided in the Ambulatory Setting to Assist Patients with Chronic Kidney Disease Considering Dialysis.

Tuan K Le, MD; Mi Chang, MD; Craig Nelson, PhD, CLS; Julie Ann Sortais, LCSW; Pushkar Chand, MD; Karen Tallman, PhD

The authors randomly assigned patients with Stage 4 or 5 chronic kidney disease who had not yet begun renal dialysis to 1 of 2 groups. The test group received an additional nephrology consult with an interdisciplinary team and reported help in forming a treatment plan, felt well understood, and had the opportunity to thoroughly discuss questions. They had a decrease in beginning dialysis, clinic visits, hospital admissions, days hospitalized, and emergency room visits.

34 Nasal Methicillin-Resistant *Staphylococcus aureus* Polymerase Chain Reaction: A Potential Use in Guiding Antibiotic Therapy for Pneumonia.

Jennifer A Johnson, MD; Michael E Wright, PharmD; Lyndsay A Sheperd, PharmD; Daniel M Musher, MD; Bich N Dang, MD

This is a retrospective study of adult patients admitted to a large urban hospital, who had a nasal methicillin-resistant *Staphylococcus aureus* (MRSA) polymerase chain reaction (PCR) test and a lower respiratory tract culture within 48 hours of admission that the culture yielded *Staphylococcus aureus*. Results showed high sensitivity (93.3%) and negative predictive value (95.2%) of nasal PCR for MRSA in the lower respiratory tract. A nasal MRSA PCR test could guide the discontinuation of MRSA-directed empiric antibiotic therapy in patients who are unlikely to be infected with this organism.

SOUL OF THE HEALER

21 **Monet's Gardens, Giverny, France**
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29 **Daddy, the Hawk's White Eye is Now Normal—Introduction to the Nictitating Membrane of a Red-Tailed Hawk**
Philip I Haigh, MD, MSc, FRCSC, FACS

37 **Snowdrop**
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NARRATIVE MEDICINE

82 Echocardiogram for Pericardial Effusion. Joseph Gascho, MD

With fluid around the heart, when younger he'd want to know what, now older he does not.

94 No Laughing Matter.

David E Clarke, MD, FCCP

A cough, then breathlessness; laughter then breathlessness. Is the cause the tubes or the gut?

CME **38 Passive Cigarette Smoke Exposure and Other Risk Factors for Invasive Pneumococcal Disease in Children: A Case-Control Study.** Colleen S Chun, MD; Sheila Weinmann, MPH, PhD; Karen Riedlinger, MT, MPH; John P Mullooly, PhD

In a population-based, case-control study, 171 children, aged 0 to 12 years, with culture-confirmed invasive pneumococcal disease during the years 1994 to 2004 were identified. Two controls were matched to each case. The authors reviewed medical records of subjects and family members for information on household cigarette smoke exposure within 2 years of the diagnosis. Passive cigarette smoke exposure was not associated with invasive pneumococcal disease in this pediatric population.

44 Trends in the Frequency of Original Research in Acne Vulgaris, Rosacea, Dermatitis, Psoriasis, Skin Cancer, and Skin Infections, 1970-2010. Young M Choi; Jashin J Wu, MD

A retrospective review of the *Journal of the American Academy of Dermatology* and the *Archives of Dermatology* was performed using the MEDLINE database for all original research articles published between 1970 and 2010. The frequency of research into acne vulgaris and rosacea decreased from 24% to 5.1%, psoriasis research increased from 17.6% to 26.5% (most likely because of the discovery of biologics), and skin cancer research increased from 4% to 48% (paralleling the increasing incidence of skin cancer).

49 Intervention to Reduce Inappropriate Ionized Calcium Ordering Practices: A Quality-Improvement Project.

Darrell B Newman, MD; Konstantinos C Siontis, MD; Krishnaswamy Chandrasekaran, MD; Allan S Jaffe, MD; Deanne T Kashiwagi, MD

The authors hypothesized that most ionized calcium (iCa) tests are ordered for routine monitoring in asymptomatic patients and results do not influence clinical management. On retrospective review of clinical records they identified the first 100 consecutive patients admitted to the hospital internal medicine (HIM) services during

January 2012 with an iCa test ordered during their hospitalization. An educational intervention regarding the appropriateness of iCa testing was undertaken targeting HIM clinicians. They then assessed the first 100 consecutive patients admitted to HIM services during November 2012. HIM services were responsible for 38% of iCa measurements before the educational intervention and 13% after, which represented a 66% reduction.

52 Temporal Comorbidity of Mental Disorder and Ulcerative Colitis. David Cawthorpe, PhD; Marta Davidson, MD

The authors used physician diagnoses from Calgary, Alberta, for patient visits from fiscal years 1994 to 2009 for treatment of any presenting concern (763,449 patients) to identify 5113 patients with a diagnosis of ulcerative colitis, and found 4192 patients also had a diagnosis of a mental disorder. Patients with mental disorder had a significantly higher annual prevalence. The mental disorder grouping neuroses/depression was most likely to arise before diagnosis of ulcerative colitis.

Special Report

58 High Amount of Dietary Fiber Not Harmful But Favorable for Crohn Disease. Mitsuro Chiba, MD, PhD; Tsuyotoshi Tsuji, MD, PhD; Kunio Nakane, MD, PhD; Masafumi Komatsu, MD, PhD

Current chronic diseases are a reflection of the Westernized diet that features a decreased consumption of indigestible dietary fiber metabolized by gut bacteria to butyrate, which has a critical role in colonic homeostasis. The authors report on initiating a semivegetarian diet (SVD) for patients with inflammatory bowel disease. There was no untoward effect of the SVD. The remission rate with combined infliximab and SVD for patients with newly diagnosed Crohn Disease was 100%. Maintenance of remission on SVD without scheduled maintenance therapy with biologic drugs was 92% at 2 years. The authors recommend a high fiber intake to treat Crohn Disease.

Special Report

62 A Plant-Based Diet, Atherogenesis, and Coronary Artery Disease Prevention. Phillip Tuso, MD, FACP, FASN; Scott R Stoll, MD; William W Li, MD

Atherosclerosis associated with high dietary intake of meats, fat, and carbohydrates remains the leading cause of mortality in the US. Polyphenols derived from dietary plant intake have protective effects on vascular endothelial cells, possibly as antioxidants that prevent oxidation of low-density lipoprotein. This review provides a mechanistic perspective of the evidence for protection by a plant-based diet against atherosclerotic coronary artery disease.

REVIEW ARTICLES

68 Acupuncture Safety in Patients Receiving Anticoagulants: A Systematic Review. Michael McCulloch, LAc, MPH, PhD; Arian Nachat, MD; Jonathan Schwartz; Vicki Casella-Gordon, RN, MS, CNS; Joseph Cook, JD

A search of PubMed, EMBASE, and Google Scholar revealed 39 citations of which 7 provided reporting quality sufficient to assess acupuncture safety in 384 anticoagulated patients (3974 treatments). Acupuncture appears to be safe in anticoagulated patients, assuming appropriate needling location and depth. The observed 0.003% complication rate is lower than the previously reported 12.3% following hip/knee replacement, and 6% following acupuncture in a prospective study of 229,230 all-type patients.

CASE STUDIES

74 An Idiosyncratic Reaction to Clopidogrel. Aaysha Kapila, MD; Lovely Chhabra, MD; Allison Diane Locke, MD; Pranav Patel, MD; Atul Khanna, MD; Chakradhar M Reddy, MD; Mark F Young, MD

Clopidogrel is an irreversible antiplatelet agent that antagonizes the adenosine diphosphate P2Y₁₂ receptor on platelets disrupting fibrinogen—platelet complex formation. The authors report on a rare but clinically significant case of clopidogrel-induced hepatotoxicity in an elderly white woman.

77 Pemphigus Vulgaris with Tense Bullae. Emilie T Nguyen; Shinko K Lin, MD; Jashin J Wu, MD

A 51-year old woman with a history of type II diabetes mellitus and dyslipidemia presented with painful lips with swelling and crusting. One year after onset of mucosal lesions, she developed an abdominal eruption with several tense vesicles and bullae on an erythematous base.

79 Adult Intussusception.

Teng Lu, MD; Yi-mei Chng, MD

This report presents the case of a 37-year-old man with multiple Emergency Department visits for abdominal pain and with negative results for prior imaging studies, who was eventually diagnosed with intussusception after 5 years of recurrent symptoms. The case is followed by a review of the literature.

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CLINICAL MEDICINE

83 Image Diagnosis: Weber Syndrome: A Rare Presentation of Acute Leukemia—A Case Report and Review of the Literature. Valliappan Muthu, MD; Santosh Kumar, MD; Gaurav Prakash, DM; Prashant Sharma, MD; Subhash Varma, MD

For two weeks before presentation, a 13-year-old boy had fever, fatigue, and breathlessness, and painless lymphadenopathy on both sides of his neck, axilla, and groin. He developed drooping of the right upper eyelid. Non-contrast computed tomography scans of the head showed multiple hemorrhages.

COMMENTRY

86 Harnessing the Affordable Care Act to Catalyze Delivery System Reform and Strengthen Emergency Care in America. John Maa, MD

As health care reform in the US evolves beyond insurance reform to encompass delivery-system reform, the opportunity arises to harness the Affordable Care Act to strengthen patient care in America. This article describes the innovations of the surgicalist and acute care surgeon that have emerged to promote teamwork, to reduce readmissions, and to strengthen emergency care.

90 Agents for Change: Nonphysician Medical Providers and Health Care Quality. Nathan A Boucher, PA-C, MS, MPA, CPHQ; Marvin A McMillen, MD, FACS, MACP; James S Gould, PA-C, MS

Nonphysician medical providers may be the first caregivers to encounter the patient and can act as agents for change for an organization's quality-improvement mandate by supporting best practices through the promotion of guidelines/protocols and playing active roles in patient engagement and organizational quality-improvement efforts.

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CLINICAL MEDICINE

Image Diagnosis: aVR, the Forgotten Lead. Donald P Mebust, MD.

The 12-lead electrocardiogram has been referred to as an "11-lead study" on the basis of the false assumption that lead aVR yields only limited information. However, it can provide information in the management of several medical conditions.

CME

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