

Abstracts of Articles Authored or Coauthored by Permanente Physicians, Nurses, and Investigators

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From Southern California:

Asthma-specific quality of life and subsequent asthma emergency hospital care.

Schatz M, Zeiger RS, Mosen D, Vollmer WM. Am J Manag Care 2008 Apr;14(4):206-11.

OBJECTIVE: To identify an optimal cut-point score on the Mini-Asthma Quality of Life Questionnaire (mini-AQLQ) to predict subsequent asthma exacerbations, and to determine the additional risk conferred by a prior history of acute episodes.

STUDY DESIGN: Cross-sectional survey linked to administrative records.

METHODS: A total of 1006 HMO patients with active asthma completed surveys that included the mini-AQLQ and prior-year history of acute episodes. Surveys were linked to administrative data that captured asthma Emergency Department and hospital care (emergency hospital care) for the year after the survey. Optimal mini-AQLQ cut-point scores were determined by stepwise logistic regression analyses using subsequent-year asthma emergency hospital care as the outcome and various mini-AQLQ cut-points as the predictors. Predictive properties of the two risk factors (mini-AQLQ cut-points and prior acute episodes) were determined.

RESULTS: A mini-AQLQ cut-point of 4.7 was most significantly associated with subsequent exacerbations in patients without a history of prior acute episodes. The presence of either a mini-AQLQ score <4.7 or a history of prior acute episodes provided high sensitivity (90.4%) and identified a group nearly six times more likely to require emergency hospital care than patients with neither risk factor. The presence of both risk factors provided high specificity (79.2%) and resulted in a risk ratio of 9.5 compared with the absence of both risk factors.

CONCLUSION: Asthma-specific quality of life and a history of acute episodes can be used together to identify patients with clinically meaningful higher and lower risks of subsequent acute exacerbations.

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From Georgia:

Albuminuria and dementia in the elderly: a community study.

Barzilay JI, Fitzpatrick AL, Luchsinger J, Yasar S, Bernick C, Jenny NS, Kuller LH. Am J Kidney Dis 2008 May 12. [Epub ahead of print]

BACKGROUND: Dementia is associated with microvascular disease of the retina. In this study, we examine whether cognitive status (normal cognition, mild cognitive impairment, and dementia) is associated with albuminuria, a microvascular disorder of the kidney.

STUDY DESIGN: Cross-sectional analysis.

SETTING & PARTICIPANTS: Two thousand three hundred sixteen participants from the Cardiovascular Health Cognition Study who underwent brain magnetic resonance imaging and testing for albuminuria.

PREDICTOR: Doubling of albuminuria.

OUTCOME: Dementia defined according to neuropsychological and clinical evaluation.

MEASUREMENTS: Multinomial logistic modeling was used to estimate odds ratios (ORs) and 95% confidence intervals (CIs) of dementia and mild cognitive impairment with doubling of albuminuria compared with the odds with normal cognition.

RESULTS: Two hundred eighty-three participants (12.2%) had dementia, 344 (14.9%) had mild cognitive impairment, and 1689 (72.9%) had normal cognition. Compared with participants with normal cognition, doubling of albuminuria was associated with increased odds of dementia (OR, 1.22; 95% CI, 1.15 to

1.29). Adjustment for prevalent cardiovascular disease and cardiovascular risk factors, lipid levels, C-reactive protein level, estimated glomerular filtration rate, and apolipoprotein E-4 genotype attenuated this association, but it remained statistically significant (OR, 1.12; 95% CI, 1.03 to 1.22). Mild cognitive impairment was associated with albuminuria on unadjusted analysis, but not with adjustment for other factors.

LIMITATIONS: Results are cross-sectional; causality cannot be imputed.

CONCLUSIONS: The odds of dementia increased in the presence of albuminuria. These findings suggest a role of shared susceptibility for microvascular disease in the brain and kidney in older adults.

This article was published in the American Journal of Kidney Disease 2008 Aug;52(2). Barzilay JI, Fitzpatrick AL, Luchsinger J, Yasar S, Bernick C, Jenny NS, Kuller LH. Albuminuria and dementia in the elderly: a community study. p 216-2. Copyright Elsevier 2008.

From Northern California:

Substance abuse treatment linked with prenatal visits improves perinatal outcomes: a new standard.

Goler NC, Armstrong MA, Taillac CJ, Osejo VM. J Perinatol 2008 Jun 26. [Epub ahead of print]

OBJECTIVE: To evaluate the impact of Early Start, an obstetric clinic-based prenatal substance abuse treatment program, on perinatal outcomes.

STUDY DESIGN: Subjects were 49,985 women who completed Prenatal Substance Abuse Screening Questionnaires at obstetric clinics between 1 January 1999 and 30 June 2003, had urine toxicology screening tests and either live births or intrauterine fetal demises (IUFDs). Four groups were compared: women screened/assessed positive and treated by Early Start ('SAT', n = 2073); women screened/

assessed positive without treatment ('SA', n = 1203); women screened positive only ('S', n = 156); controls who screened negative (n = 46,553). Ten neonatal and maternal outcomes were studied.

RESULT: SAT women had either similar or slightly higher rates than the control women on most outcomes but significantly lower rates than S women. SA women generally had intermediate rates to the SAT and S groups. In multivariate analysis, the S group had significantly worse outcomes than the SAT group: preterm delivery (odds ratio (OR) = 2.1, 1.3 to 3.2), placental abruption (OR = 6.8, 3.0 to 15.5) and IUFD (OR = 16.2, 6.0 to 43.8).

CONCLUSION: Substance abuse treatment integrated with prenatal visits was associated with a positive effect on maternal and newborn health.

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From the Northwest:

The greatest challenges reported by long-term colorectal cancer survivors with stomas.

McMullen CK, Hornbrook MC, Grant M, Baldwin CM, Wendel CS, Mobler MJ, Altschuler A, Ramirez M, Krouse RS. J Support Oncol 2008 Apr;6(4):175-82.

This paper presents a qualitative analysis of the greatest challenges reported by long-term colorectal cancer survivors with ostomies. Surveys that included an open-ended question about challenges of living with an ostomy were administered at three Kaiser Permanente regions: Northern California, Northwest, and Hawaii. The study was coordinated at the Southern Arizona Veterans Affairs Health Care System in Tucson. The City of Hope Quality of Life Model for Ostomy Patients provided a framework for the study's design, measures, data collection, and data analysis. The study's findings may be generalized broadly to community set-

tings across the US. Results replicate those of previous research among veterans, California members of the United Ostomy Association, Koreans with ostomies, and colorectal cancer survivors with ostomies residing in the United Kingdom. The greatest challenges reported by 178 colorectal cancer survivors with ostomies confirmed the Institute of Medicine's findings that survivorship is a distinct, chronic phase of cancer care and that cancer's effects are broad and pervasive. The challenges reported by study participants should inform the design, testing and integration of targeted education, early interventions, and ongoing support services for colorectal cancer patients with ostomies. ❖

This article was published in Journal of Supportive Oncology 2008 Apr;6(4). McMullen CK, Hornbrook MC, Grant M, Baldwin CM, Wendel CS, Mobler MJ, Altschuler A, Ramirez M, Krouse RS. The greatest challenges reported by long-term colorectal cancer survivors with stomas. p 175-82.

The Third Responsibility

The medical profession has a responsibility not only for the cure of the sick and for the prevention of disease but for the advancement of knowledge upon which both depend. This third responsibility can only be met by investigation and experiment.

— *Proceedings of the Royal Society of Medicine, Robert A McCance, 1898-1993, physician, nutritionist, former Professor of Experimental Medicine at Cambridge University, and research pioneer in mineral metabolism*