



Veterans Health Care March 2004

1: Am J Manag Care. 2004 Mar;10(3):209-16.

Physician satisfaction with formulary policies: is it access to formulary or nonformulary drugs that matters most?

Glassman PA, Good CB, Kelley ME, Bradley M, Valentino M.

OBJECTIVE: To assess physician satisfaction with Department of Veterans Affairs (VA) formulary policies and to examine the correlation between physician satisfaction and perceived access to formulary and nonformulary medications. **STUDY DESIGN:** Cross-sectional survey with specific questions on access to formulary and nonformulary medications. Statistical analyses included assessment of associations between physician satisfaction and various measures of access. **PARTICIPANTS AND METHODS:** Initial sample of 4015 staff physicians working in VA healthcare facilities. Responses were received from 1812 (49%) of the 3682 physicians in the final eligible sample population. **RESULTS:** Most clinicians (72%) reported that their local formulary covered more than 90% of the medications they wanted to prescribe. Most (73%) agreed that drug restrictions were important to contain costs, and 86% agreed that it was important for VA to choose "best-value" drugs. Respondents reported an 89% approval rate for nonformulary drugs, though 31% indicated that approvals routinely took 3 or more days. We found strong associations between physician satisfaction and self-reported approval rates for nonformulary drugs ($P = .001$), timely approval of nonformulary requests ($P < .001$), and percentage of nonformulary prescriptions as a proportion of overall prescriptions at a regional level ($P < .01$). There was no significant correlation between physician satisfaction and number of medications added to regional formularies or with drug costs per unique patient. **CONCLUSIONS:** VA physicians were generally supportive of VA formulary policies including choosing best-value drugs to control pharmaceutical expenditures. Nevertheless, access to nonformulary drugs and timely approval of requests for nonformulary medications were strong predictors of clinician satisfaction and support for cost-containment measures.

PMID: 15032258

2: Am J Med. 2004 Mar 15;116(6):420-3.

Association of venous thromboembolism with human immunodeficiency virus and mortality in veterans.

Fultz SL, McGinnis KA, Skanderson M, Ragni MV, Justice AC.

PMID: 15006592

3: Am J Med. 2004 Mar 15;116(6):394-401.

Effects of geriatric evaluation and management on adverse drug reactions and suboptimal prescribing in the frail elderly.

Schmader KE, Hanlon JT, Pieper CF, Sloane R, Ruby CM, Twersky J, Francis SD, Branch LG, Lindblad CI, Artz M, Weinberger M, Feussner JR, Cohen HJ.

PURPOSE: To determine if inpatient or outpatient geriatric evaluation and management, as compared with usual care, reduces adverse drug reactions and suboptimal prescribing in frail elderly patients. **METHODS:** The study employed a randomized 2 x 2 factorial controlled design. Subjects were patients in 11 Veterans Affairs (VA) hospitals who were > or =65 years old and met criteria for frailty (n = 834). Inpatient geriatric unit and outpatient geriatric clinic teams evaluated and managed patients according to published guidelines and VA standards. Patients were followed for 12 months. Blinded physician-pharmacist pairs rated adverse drug reactions for causality (using Naranjo's algorithm) and seriousness. Suboptimal prescribing measures included unnecessary and inappropriate drug use (Medication Appropriateness Index), inappropriate drug use (Beers criteria), and underuse. **RESULTS:** For serious adverse drug reactions, there were no inpatient geriatric unit effects during the inpatient or outpatient follow-up periods. Outpatient geriatric clinic care resulted in a 35% reduction in the risk of a serious adverse drug reaction compared with usual care (adjusted relative risk = 0.65; 95% confidence interval: 0.45 to 0.93). Inpatient geriatric unit care reduced unnecessary and inappropriate drug use and underuse significantly during the inpatient period (P <0.05). Outpatient geriatric clinic care reduced the number of conditions with omitted drugs significantly during the outpatient period (P <0.05). **CONCLUSION:** Compared with usual care, outpatient geriatric evaluation and management reduces serious adverse drug reactions, and inpatient and outpatient geriatric evaluation and management reduces suboptimal prescribing, in frail elderly patients.

PMID: 15006588

4: Am J Med. 2004 Mar 15;116(6):375-84.

A controlled trial of including symptom data in computer-based care suggestions for managing patients with chronic heart failure.

Subramanian U, Fihn SD, Weinberger M, Plue L, Smith FE, Udriș EM, McDonell MB, Eckert GJ, Temkit M, Zhou XH, Chen L, Tierney WM.

BACKGROUND: Heart failure is common and associated with considerable morbidity and cost, yet physician adherence to treatment guidelines is suboptimal. We conducted a randomized controlled study to determine if adding symptom information to evidence-based, computer-generated care suggestions would affect treatment decisions among primary care physicians caring for outpatients with heart failure at two Veterans Affairs medical centers. **METHODS:** Physicians were randomly assigned to receive either care suggestions generated with electronic medical record data and symptom data obtained from questionnaires mailed to patients within 2 weeks of scheduled outpatient visits (intervention group) or suggestions generated with electronic medical record data alone (control group). Patients had to have a diagnosis of heart failure and objective evidence of left ventricular systolic dysfunction. We assessed physician adherence to heart failure guidelines, as well as patients' New York Heart Association (NYHA) class, quality of life, satisfaction with care, hospitalizations, and outpatient visits, at 6 and 12 months after enrollment. **RESULTS:** Patients in the intervention (n = 355) and control (n = 365) groups were similar at baseline. At 12 months, there were no significant differences in adherence to care suggestions between physicians in the intervention and control groups (33% vs. 30%, P = 0.4). There were also no significant changes in NYHA class (P = 0.1) and quality-of-life measures (P >0.1), as well as no differences in the number of outpatient visits between intervention and control patients (6.7 vs. 7.1 visits, P = 0.48). Intervention patients were more satisfied with their physicians (P = 0.02) and primary care visit (P = 0.02), but had more all-cause hospitalizations at 6 months

(1.5 vs. 0.7 hospitalizations, $P = 0.0002$) and 12 months (2.3 vs. 1.7 hospitalizations, $P = 0.05$). CONCLUSION: Adding symptom information to computer-generated care suggestions for patients with heart failure did not affect physician treatment decisions or improve patient outcomes.
PMID: 15006586

5: Ann Pharmacother. 2004 Mar 18 [Epub ahead of print]
Glycosylated Hemoglobin, Cardiovascular, and Renal Outcomes in a Pharmacist-Managed Clinic (May).
Cioffi ST, Caron MF, Kalus JS, Hill P, Buckley TE.
BACKGROUND: Pharmacists' responsibilities in caring for patients with diabetes mellitus are expanding. However, few data are available to support pharmacists optimizing therapy and improving outcomes in these patients. OBJECTIVE: To determine the effect of a clinical pharmacist-directed diabetes management clinic on glycemic control and cardiovascular and renal parameters in patients with type 2 diabetes. METHODS: A nonrandomized, prospective study was conducted in 70 Veterans Affairs patients. Patients met with the pharmacist every 6-8 weeks for approximately 30 minutes for education, medication counseling, monitoring, and management. The primary endpoint was the impact of 9-12 months of participation in the clinic on glycosylated hemoglobin (HbA1C). Secondly, we evaluated body weight, total cholesterol, low-density lipoprotein cholesterol (LDL-C), high-density lipoprotein cholesterol, triglycerides, systolic and diastolic blood pressure, and level of microalbuminuria. All comparisons were made using a paired t-test at a significance level of $p \leq 0.05$. RESULTS: HbA1C significantly decreased from 10.3% +/- 2.2% at baseline to 6.9% +/- 1.1% (mean +/- SD) during the 9- to 12-month evaluation period ($p < 0.001$). The secondary endpoints including systolic ($p < 0.001$) and diastolic ($p < 0.001$) blood pressure, total cholesterol ($p < 0.001$), LDL-C ($p < 0.001$), triglycerides ($p = 0.006$), and level of microalbuminuria ($p < 0.001$) also were reduced at 9-12 months. CONCLUSIONS: This study demonstrated that a clinical pharmacist can effectively care for patients with diabetes referred by their primary care provider because of poor glycemic control.
PMID: 15031417

6: Ann Vasc Surg. 2004 Mar 15 [Epub ahead of print]
Surveillance Venous Duplex Is Not Clinically Useful after Total Joint Arthroplasty When Effective Deep Venous Thrombosis Prophylaxis Is Used.
Schwarcz TH, Matthews MR, Hartford JM, Quick RC, Kwolek CJ, Minion DJ, Edean ED, Mentzer RM.
The early detection of deep venous thrombosis (DVT) and treatment with systemic anticoagulation to prevent pulmonary embolism (PE) are essential in the management of patients undergoing total joint arthroplasty (TJA). However, improvements in prophylactic measures have significantly decreased the occurrence of DVT in these patients. The purpose of this study was to determine whether routine postoperative duplex surveillance for DVT remains clinically useful. The medical records of all patients undergoing total knee or total hip arthroplasty between October 1997 and January 2002 at a University Hospital and its Veterans Affairs (VA) affiliate were reviewed. The type of operation and occurrence of complications (e.g., DVT, PE, and hemorrhage) were noted. All patients were treated postoperatively with both enoxaparin 30 mg b.i.d. and bilateral lower extremity sequential compression devices (SCDs). A venous duplex scan was performed prior to discharge. Three hundred ninety-eight patients underwent 441 TJAs for 149 hips and 292 knees. The average age was 65 years (range, 23-95). Venous duplex scans were performed within 1 week (median, 4 days) of operation. Initial inpatient scans revealed acute, ipsilateral DVT in five patients (1.3%). Three patients experienced documented PE-

one as an inpatient and two after hospital discharge; both outpatients had negative in-hospital duplex scans. One of the 398 patients did not have a duplex scan as an inpatient and returned 6 weeks later with a popliteal DVT. Complications included one upper gastrointestinal hemorrhage, and one patient died postoperatively of unknown causes. These data demonstrate that routine postoperative venous duplex scans rarely found DVT (5 of 398 patients) after TJA when effective prophylaxis was used. Furthermore, surveillance scanning did not enable reliable prediction of PE. Therefore, we conclude that postoperative inpatient surveillance duplex scans for DVT provide very minimal benefit and that a routine screening program is not clinically useful for patients managed with effective DVT prophylaxis.
PMID: 15022090

7: Arch Gen Psychiatry. 2004 Mar;61(3):310-7.

Move over ANOVA: progress in analyzing repeated-measures data and its reflection in papers published in the Archives of General Psychiatry.

Gueorguieva R, Krystal JH.

BACKGROUND: The analysis of repeated-measures data presents challenges to investigators and is a topic for ongoing discussion in the Archives of General Psychiatry. Traditional methods of statistical analysis (end-point analysis and univariate and multivariate repeated-measures analysis of variance [rANOVA and rMANOVA, respectively]) have known disadvantages. More sophisticated mixed-effects models provide flexibility, and recently developed software makes them available to researchers. **OBJECTIVES:** To review methods for repeated-measures analysis and discuss advantages and potential misuses of mixed-effects models. Also, to assess the extent of the shift from traditional to mixed-effects approaches in published reports in the Archives of General Psychiatry. **DATA SOURCES:** The Archives of General Psychiatry from 1989 through 2001, and the Department of Veterans Affairs Cooperative Study 425. **STUDY SELECTION:** Studies with a repeated-measures design, at least 2 groups, and a continuous response variable. **DATA EXTRACTION:** The first author ranked the studies according to the most advanced statistical method used in the following order: mixed-effects model, rMANOVA, rANOVA, and end-point analysis. **DATA SYNTHESIS:** The use of mixed-effects models has substantially increased during the last 10 years. In 2001, 30% of clinical trials reported in the Archives of General Psychiatry used mixed-effects analysis. **CONCLUSIONS:** Repeated-measures ANOVAs continue to be used widely for the analysis of repeated-measures data, despite risks to interpretation. Mixed-effects models use all available data, can properly account for correlation between repeated measurements on the same subject, have greater flexibility to model time effects, and can handle missing data more appropriately. Their flexibility makes them the preferred choice for the analysis of repeated-measures data.

PMID: 14993119

8: Biol Psychiatry. 2004 Mar 15;55(6):621-6.

Salivary cortisol and posttraumatic stress disorder in a low-income community sample of women.

Young EA, Tolman R, Witkowski K, Kaplan G.

BACKGROUND: Studies of male combat veterans with posttraumatic stress disorder have demonstrated a profile of low cortisol. Studies with women with posttraumatic stress disorder (PTSD) have focused on childhood sexual abuse and holocaust survivors, both of whom experienced trauma during development, which could be different than adult trauma exposure. **METHODS:** Using an epidemiologic sample of low-income women from an urban area in Michigan, we conducted structured psychiatric interviews and saliva cortisol collection on a subsample of women with exposure to trauma but never PTSD (n = 72), recent PTSD (n = 29), and past PTSD

(n = 70). Saliva cortisol was collected at awakening, 30 minutes later, at bedtime, and during a clinic visit. RESULTS: Recent trauma exposure but not past trauma exposure led to an increase in saliva cortisol. Neither recent PTSD nor past PTSD resulted in any saliva cortisol changes compared with the trauma exposed, never PTSD group. Recent major depression (past 12 months) demonstrated a weak effect (p = .08) on bedtime saliva cortisol. CONCLUSIONS: While recent trauma exposure can increase saliva cortisol, neither recent nor past PTSD affected saliva cortisol in our community sample of women. Our data do not support saliva cortisol changes associated with PTSD.

PMID: 15013831

9: Curr Atheroscler Rep. 2004 Mar;6(2):148-57.

The role of fibrates in managing hyperlipidemia: mechanisms of action and clinical efficacy.

Fazio S, Linton MF.

At a time when the lipid management guidelines give more and more emphasis to the identification and treatment of high-risk patients with the metabolic syndrome and diabetes, there is an obvious need to balance the known effects of low-density lipoprotein (LDL) lowering with the new evidence of clinical efficacy derived from the adjustment of high-density lipoprotein (HDL) and triglyceride levels. Whereas the statins remain the drug of choice for patients who need to reach the LDL goal, fibrate therapy may represent the best intervention for subjects with atherogenic dyslipidemia and an LDL already close to goal. In addition, the concomitant use of fibrates may significantly reduce cardiovascular risk in patients whose LDL is controlled by statin therapy. In this review, we evaluate the pharmacologic properties of the fibrate drugs, with particular attention to the effects of peroxisome proliferator activated receptor α activation in the control of dyslipidemia as well as in the attenuation of arterial inflammation. Clinical trials of fibrates, such as the Helsinki Heart Study, Veterans Affairs High-density lipoprotein Intervention Trial, Diabetes Atherosclerosis Intervention Study, and Bezafibrate Infarction Prevention trial, have conjured up a scenario for the clinical utility of fibrates and their possible superiority to statins in the management of obese, insulin-resistant, and diabetic patients presenting with near-goal LDL and inappropriate HDL and triglyceride levels. PMID: 15023300

10: J Am Coll Cardiol. 2004 Mar 3;43(5):778-84.

Impact of race on health care utilization and outcomes in veterans with congestive heart failure.

Deswal A, Petersen NJ, Soucek J, Ashton CM, Wray NP.

OBJECTIVES: The objectives of this study were to determine racial differences in mortality in a national cohort of patients hospitalized with congestive heart failure (CHF) within a financially "equal-access" healthcare system, the Veterans Health Administration (VA), and to examine racial differences in patterns of healthcare utilization following hospitalization. BACKGROUND: To explain the observed paradox of increased readmissions and lower mortality in black patients hospitalized with CHF, it has been postulated that black patients may have reduced access to outpatient care, resulting in a higher number of hospital admissions for lesser disease severity. METHODS: In a retrospective study of 4,901 black and 17,093 white veterans hospitalized with CHF in 153 VA hospitals, we evaluated mortality at 30 days and 2 years, and healthcare utilization in the year following discharge. RESULTS: The risk-adjusted odds ratios (OR) for 30-day and 2-year mortality in black versus white patients were 0.70 (95% confidence interval [CI] 0.60 to 0.82) and 0.84 (95% CI 0.78 to 0.91), respectively. In the year following discharge, blacks had the same rate of readmissions as whites. Blacks had a lower rate of medical

outpatient clinic visits and a higher rate of urgent care/emergency room visits than whites, although these differences were small. CONCLUSIONS: In a system where there is equal access to healthcare, the racial gap in patterns of healthcare utilization is small. The observation of better survival in black patients after a CHF hospitalization is not readily explained by differences in healthcare utilization. PMID: 14998616

11: J Am Geriatr Soc. 2004 Mar;52(3):417-422.

Potentially Inappropriate Antiepileptic Drugs for Elderly Patients with Epilepsy. Pugh MJ, Cramer J, Knoefel J, Charbonneau A, Mandell A, Kazis L, Berlowitz D. OBJECTIVES: : To describe prescribing patterns for older veterans with epilepsy, determine whether disparity exists between these patterns and clinical recommendations, and describe those at greatest risk of receiving potentially inappropriate antiepileptic drugs (AEDs). DESIGN: : Retrospective administrative database analysis. SETTING: : All outpatient facilities within the Department of Veterans Affairs (VA). PARTICIPANTS: : All veterans aged 65 and older who had epilepsy diagnosed before the end of fiscal year 1999 (FY99) and who received AEDs from the VA in FY99 (N=21,435). MEASUREMENTS: : National VA pharmacy data were used to determine the AED regimen based on the AEDs patients received during the year. Administrative data were used to describe demographic variables and to gauge disease severity and epilepsy onset. RESULTS: : Approximately 17% of patients received phenobarbital and 54% phenytoin. Patients classified as having newly diagnosed disease were less likely to receive Phenobarbital monotherapy and combination therapy and more likely to receive gabapentin or lamotrigine monotherapy ($\chi^2=288.90$, $P<.001$). Logistic regression analyses indicated that, for all patients, those with more severe disease were less likely to receive phenobarbital monotherapy than other monotherapy and phenobarbital combinations than other combinations. Those who received specialty consultation were less likely to receive phenytoin monotherapy than AED monotherapy, which is consistent with clinical recommendations. CONCLUSION: : Most older veterans received potentially inappropriate AED therapy. Hence, the standard of care for older patients with epilepsy should be reevaluated, although the vast use of phenytoin in this population suggests that change in practice patterns may be difficult. PMID: 14962158

12: J Geriatr Psychiatry Neurol. 2004 Mar;17(1):13-9.

Pathological gambling among elderly veterans.

Kausch O.

The purpose of the present study was to examine elderly patients, aged 60 and older, admitted to a residential gambling treatment program and to compare them to a younger cohort on a variety of mental health factors and measures. A retrospective chart review was performed for 37 elderly gamblers consecutively admitted to the Gambling Treatment Program of a VA center between December 1999 and December 2002. These elderly subjects were compared with a younger cohort of 98 gamblers. On intake, the gamblers completed the Addiction Severity Index (ASI) and a variety of mental health questionnaires. Compared to the younger cohort, elderly gamblers were more likely to be retired but demonstrated similar impairment on the ASI composite employment severity score. Elderly gamblers were just as likely as the younger gamblers to have a lifetime history of serious suicidal ideation. They were equally likely as the younger cohort to carry a psychiatric diagnosis, and depression was the most common diagnosis.

PMID: 15018692

13: J Geriatr Psychiatry Neurol. 2004 Mar;17(1):25-31.

Herbal products and other supplements: use by elderly veterans with depression and dementia and their caregivers.

Kales HC, Blow FC, Welsh DE, Mellow AM.

The use of herbal products and other "natural" supplements among the US population is on the rise. Limited data suggest that such use among the elderly may correlate with higher education levels as well as psychiatric symptoms. The authors examined herbal/supplement use among elderly veterans with depression and/or dementia (n = 82) and their primarily elderly caregivers (n = 56). Eighteen percent of subjects and 16% of caregivers used herbals/supplements. Seventy-five percent of subjects who used these products during the study period were also taking potentially interacting medications. Given the prior association of herbal/supplement use with higher education levels, a surprising number of elderly veterans with depression and/or dementia (the majority of whom had high school or less education) used these products. As evidenced by missing documentation in many physician notes, subjects may not have discussed their usage of herbals/supplements with their physicians. In light of the possibility of potentially harmful drug interactions, physicians who treat elderly patients should regularly inquire about the use of these products.

PMID: 15018694

14: J Geriatr Psychiatry Neurol. 2004 Mar;17(1):36-8.

Use of a VA pharmacy database to screen for areas at high risk for disease: Parkinson's disease and exposure to pesticides.

Yesavage JA, Sheikh J, Noda A, Murphy G, O'Hara R, Hierholzer R, Battista M, Ashford JW, Kraemer HC, Tinklenberg J.

The purpose of this study was to assess whether pharmacy database information from US Department of Veterans Affairs (VA) medical centers could be used to screen for areas of higher Parkinson's disease prevalence in patients exposed to pesticides. The authors used pharmacy data sets and compared the use of antiparkinsonian medications at 2 VA medical centers in California: one in Palo Alto, near the ocean, and one in Fresno, downwind from extensively farmed parts of the Central Valley. They found that patients at Fresno had higher odds ratios (1.5-1.8) for the use of Parkinson's disease medications than patients at Palo Alto. These data are consistent with the observations of prior epidemiologic studies and suggest that VA pharmacy databases can prioritize locations for further epidemiologic research. However, a thorough exploration of alternative explanations is needed to reach definitive conclusions regarding the findings suggested by this method.

PMID: 15018696

15: J Manag Care Pharm. 2004 Mar-Apr;10(2):152-8.

Improving antimicrobial use: longitudinal assessment of an antimicrobial team including a clinical pharmacist.

Arnold FW, McDonald LC, Newman D, Smith RS, Ramirez JA.

BACKGROUND: Inappropriate antimicrobial utilization in hospitalized patients has been associated with adverse effects, emergence of resistant bacteria, and increased health care cost. Participation of clinical pharmacists, working as an integral part of a hospital antimicrobial management team (AMT), has been shown to improve antimicrobial use; however, the long-term impact of such a team on antimicrobial use is unclear. **OBJECTIVE:** Our primary objective was to evaluate whether the number of recommendations to improve antimicrobial use made by a hospital AMT decreased over time. Our secondary objective was to identify and evaluate the acceptance of AMT recommendations with respect to the clinical service, site of infection, and category of suboptimal use. **METHODS:** We retrospectively reviewed

antimicrobial utilization data collected by the team for the 3-year period from July 1996 to June 1999 at the Veterans Affairs Medical Center in Louisville, Kentucky. The total number of antimicrobial treatment episodes and the number of recommendations were grouped into periods of 6 months each during the 3 years. The type of recommendation, type of infection, and clinical service (medicine versus surgery) were reviewed for the entire 3-year period. RESULTS: The number of antimicrobial treatment episodes for each of the 6-month consecutive periods was 404, 526, 406, 549, 507, and 612. The proportion of episodes requiring team recommendations was constant over the 5 consecutive periods: 39%, 37%, 36%, 36%, 35%, and 37%. (P = 0.8). Acceptance rates of AMT recommendations by the internal medicine and general surgery services remained stable over the length of the study, 84% and 69%, respectively. The distribution of patients treated by the site of infection also remained stable over the study period. CONCLUSION: Our results demonstrate that despite the long-term presence of an AMT, the proportion of antimicrobial episodes requiring intervention and the percentage of accepted recommendations remained constant over a 3-year period. Having new resident physicians in teaching hospitals or staff turnover in managed care organizations may necessitate the continued presence of an active AMT.
PMID: 15032564

16: J Toxicol Environ Health A. 2004 Feb 27;67(4):277-96.

Health effects of depleted uranium on exposed Gulf War veterans: a 10-year follow-up.

McDiarmid MA, Engelhardt S, Oliver M, Gucer P, Wilson PD, Kane R, Kabat M, Kaup B, Anderson L, Hoover D, Brown L, Handwerker B, Albertini RJ, Jacobson-Kram D, Thorne CD, Squibb KS.

Medical surveillance of a group of U.S. Gulf War veterans who were victims of depleted uranium (DU) "friendly fire" has been carried out since the early 1990s. Findings to date reveal a persistent elevation of urine uranium, more than 10 yr after exposure, in those veterans with retained shrapnel fragments. The excretion is presumably from ongoing mobilization of DU from fragments oxidizing in situ. Other clinical outcomes related to urine uranium measures have revealed few abnormalities. Renal function is normal despite the kidney's expected involvement as the "critical" target organ of uranium toxicity. Subtle perturbations in some proximal tubular parameters may suggest early although not clinically significant effects of uranium exposure. A mixed picture of genotoxic outcomes is also observed, including an association of hypoxanthine-guanine phosphoribosyl transferase (HPRT) mutation frequency with high urine uranium levels. Findings observed in this chronically exposed cohort offer guidance for predicting future health effects in other potentially exposed populations and provide helpful data for hazard communication for future deployed personnel.

PMID: 14713562