

VA Health Services
Research & Development Service



**Impacts 2002** 

The Health Services Research & Development Service (HSR&D) is a program within the Veterans Health Administration's Office of Research and Development. HSR&D provides expertise in health services research, a field that examines the effects of organization, financing, and management on a wide range of problems in health care delivery – quality of care, access, cost, and patient outcomes. Its programs span the continuum of health care research and delivery, from basic research to the dissemination of research results, and ultimately to the application of these findings to clinical, managerial and policy decisions.

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#### **Message from the Director**

Providing the highest quality health care to millions of veterans each year is an enormous and complex undertaking. It is further complicated by the breathtakingly rapid change in the larger health care environment over the past decade. More and more the expertise of health services researchers is in high demand to tackle the many new and challenging health care questions that managers and clinicians face.

The Health Services Research and Development Service (HSR&D) strives to identify high quality, cost effective ways to organize and deliver health care to veterans. We seek strategies that work to improve patient outcomes as well as system level outcomes. HSR&D's research agenda supports VA's quest for innovative solutions to today's health care challenges. Through an extensive portfolio of merit-reviewed research studies, HSR&D works to improve the quality of health care for veterans by examining the effects of the organization, financing and management of health care services on the quality, cost, access to, and outcomes of those services.

This document, HSR&D Impacts 2002, summarizes a number of studies that demonstrate HSR&D's commitment to making a difference in veterans health care. The highlighted studies are organized into categories of importance to the veteran population, such as aging, chronic diseases, health systems (eg, health care delivery, organization, quality and outcomes), mental illness, sensory disorder and loss, substance abuse, and special populations (eg, women, ethnic and cultural groups).

We are pleased to share with you some of HSR&D's important impacts over the past year. With the dedication of the entire HSR&D research community, we will continue to seek innovative strategies that improve the health care of every veteran.

John G. Demakis, M.D. Director, HSR&D

# **Aging & Age Related Changes**

#### Pain management helps patients with dementia

Dementia illness often co-exists with painful medical conditions associated with aging such as osteoarthritis, skin ulcers, cancer, and angina. These painful conditions can go unnoticed in patients with dementia because of communication problems, but signs of this pain may include agitation and behaviors associated with discomfort. HSR&D researchers reveal a significant relationship between discomfort and agitation among nursing home residents with dementia, which suggests that agitated behaviors may be associated with increased pain. In a clinical trial of acetaminophen, a change in discomfort was found to be significantly related to a change in agitation. Since one treatment does not benefit all persons, patients with dementia need individualized pain assessment and treatment. Better quality of life for long-term care residents may result from regularly scheduled pain management. This is particularly relevant to the VA health care system due to the increasing number of aging veterans.

Buffum MD, Miakowski C, Sand L, Brod M. A pilot study of the relationship between discomfort and agitation in patients with dementia. Geriatric Nursing 2001; 22:80-85.

NRI 95-192

# **Aging & Age Related Changes**

#### Determining the impact of dementia on veterans' families

Within VA, the number of veterans with severe dementia has greatly increased over the last few decades and is now approximately 600,000. Equal or higher numbers of veterans are estimated to have mild to moderate dementia. The goal of this HSR&D research is to determine the impact of dementia on veterans' families in terms of informal caregiving, costs, and quality of life. Further, the direct non-medical costs (ie, caregiving), indirect morbidity costs (ie, lost productivity), and quality of life related to caregiving were examined on a national level in relation to the amount and types of services that are being utilized, including institutionalization. Results of the study show that the largest units of caregiving cost come from the amount of time allocated to caregiving and the caregiver's lost earnings. Moreover, all aspects of costs increase with disease severity and problem behavior. Most of this cost increase derives from the increased caregiving time required for the provision of physical care. An estimated \$4 billion per year could be saved in the US if institutionalization from dementing illnesses, such as Alzheimer's disease, is delayed by one month. Therefore, VA would benefit greatly from an increase in the precision by which community care is monitored and supported. More importantly, veterans with dementia who receive appropriately targeted interventions may be able to remain at home longer in environments that promote maximum independence for both caregivers and patients.

Moore MJ, Zhu CW, Clipp EC. Informal costs of dementia care: Estimates from the National Longitudinal Caregiver Study. Journal of Gerontology 2001; 56B:S219-S228.

Zhu C, Clipp EC, Moore MJ. Informal Costs of Dementia. In Research and Practice in Alzheimer's Disease and Other Dementias (special issue on caregiving). B. Vellas, Editor-in-Chief. European Alzheimer's Disease Consortium (EADC). In Press.

NRI 95-218

# **Aging & Age Related Changes**

#### Measuring the quality of dying

Improving care for the dying has become a national priority in a medical culture that often defines death not as a natural part of life, but as a negative medical outcome. Despite efforts to improve the experience for dying patients, no well-established standardized outcome measures exist to assess the quality of care at the end of life, especially those that take into consideration patient and family perspectives. Toward this goal, this study examined patients', families', and health care providers' preferences regarding preparation for the end of life. Study findings show that all of these groups agree on several priorities: naming someone to make decisions, knowing what to expect regarding the dying person's physical condition, having financial affairs in order, having treatment preferences in writing, and knowing that the physician is comfortable talking about death and dying. Patients were more likely than physicians to want to plan funerals and know the timing of death, and were less likely than all other groups to want to discuss personal fears. Although participants in this study agreed with the importance of preparation, previous studies show that actual discussions about preparing for the end of life are less frequent. Further research and training may ensure that the desire for greater preparation is translated into improved action in medical practice.

Stenhauser KE, Christakis NA, Clipp EC, McNeilly M, Grambow S, Parker J, Tulsky JA. Preparing for the end of life: Preferences of patients, families, physicians, and other care providers. Journal of Pain and Symptom Management 2001; 22(3):727-737.

IIR 98-162

# **Aging & Age Related Changes**

#### Specialized primary care services for at-risk elders

Currently, three of every five American men age 65 or older are veterans, accounting for more than half of VA's patient population. While many innovative programs for geriatric care exist within VHA, there is the need for a systematic process to identify at-risk elderly veterans within the larger VA population who would benefit from these specialized services. An HSR&D study seeks to improve care for at-risk older veterans through a comprehensive system of casefinding, assessment, referral, and follow-up case management within the primary care setting. Community-living veterans, aged 65 years and older who were not already using geriatric services, were mailed a survey to identify those with risk factors for functional decline, hospitalization, or nursing home placement. Subjects in the intervention group who were identified as at-risk then received a structured telephone assessment to further identify specific geriatric conditions. If indicated, intervention subjects received referrals to appropriate VA services and follow-up telephone case management for three years. Subjects in the control group received usual care. During the first year of follow-up, documentation in the medical record of screening or questioning for the target conditions was found much more often for intervention subjects than for control subjects. Overall, 67 percent of intervention subjects received a referral for specialized geriatric assessment and/or care. These results are very significant to VA as plans are made for the care of the increasing older population within the primary care setting.

Alessi CA, Josephson KR, Pietruszka FM, Harker JO, Rubenstein LZ. Recognition of geriatric conditions in an outpatient geriatric assessment trial. Gerontologist 2000; 40(SI):77.

IIR 95-050

# **Aging & Age Related Changes**

# Increasing daytime activity improves nighttime sleep in the elderly

Sleep disturbance is a highly prevalent, disabling symptom in elderly persons who are cognitively-impaired. Their nighttime sleep is light and inefficient with frequent arousals and awakenings, and short daytime naps interfere with daytime activity and functioning. In addition, daytime disruptive behaviors are related significantly to sleep disturbance. Medical treatment for behavior and sleep disturbances with benzodiazepines or antipsychotic medications is only minimally effective and can present serious side effects, such as impaired memory, coordination, and balance, or severe rebound insomnia. This HSR&D study sought to determine whether or not increased daytime activity would be an effective nonpharmacological intervention, especially for elders living in institutions where they may be physically, cognitively, and emotionally understimulated. This pilot study showed that activities timed to occur during usual naptime, while tailored to their interests and abilities, improved nighttime sleep. Thus, residents who received the Individualized Activity Intervention were awake less at night and fell asleep faster. Investigators are now evaluating this intervention in terms of cost and its effect on the residents' psychological well-being and disruptive behavior.

Richards KC, Sullivan SC, Phillips RL, Beck CK, Overton-McCoy AL. The effect of individualized activities on the sleep of nursing home residents who are cognitively impaired: A pilot study. Journal of Geronotological Nursing 2001; 27(9):30-37.

NRM 95-184

#### **Chronic Diseases**

#### Telecommunications system for patients with COPD

Current advances in technology provide an opportunity for innovative approaches to the management of some medical conditions. As health care costs increase, computerized, telephone-linked communication systems offer a less costly, widely available alternative for maintaining contact between patients and providers. This may be particularly appropriate for patients with debilitating and/or serious illness, such as chronic obstructive pulmonary disease (COPD) - one of the most common chronic illnesses among veterans. HSR&D researchers have designed a telephone-linked care (TLC) system for patients with COPD. The TLC-COPD system will monitor, educate, and counsel patients through regular automated conversations in the patients' homes. A routine call would include: a verification of the patient's identity using a password; an assessment of the patient's clinical status, focusing on symptoms; questions regarding their medication regimen; and a counseling component that would include reminders about physician appointments, encouragement to exercise, and recommendations regarding influenza and pneumococcal vaccinations. It is expected that this ongoing telemedicine project will improve functional status and quality of life, as well as decrease health care utilization and costs. The TLC-COPD system will also increase access to health care for the many veterans with this condition who live in rural areas.

Young M, Sparrow D, Gottlieb D, Selim A, Friedman R. A telephone-linked computer system for COPD care. Chest 2001; 119(5):1565-1575.

IIR 97-022

#### **Chronic Diseases**

#### Study shows that combination HIV treatments lower cost

Investigators from HSR&D's HIV Quality Enhancement Research Initiative (QUERI) group conducted a study which indicates that the total cost of care for adults with HIV infection has declined since the introduction of highly active antiretroviral therapy. The study, which followed 2864 patients receiving care for HIV infection for 36 months, found that the use of highly active antiretroviral therapy was independently associated with a reduction in health care expenditures. This is important because the introduction of highly active combination antiretroviral therapy for HIV infection has caused concern about increased costs of care. Findings from this study also showed that pharmaceutical costs were lowest and hospital costs highest among blacks, women, and patients without private insurance. This study suggests that even though HIV drugs are costly, they represent a good value in that they save more than they cost, especially in quality of life for veterans afflicted with this disease.

Bozzette SA, Joyce G, McCaffrey DF, Leibowitz AA, Morton SC, Berry SH, Rastegar A, Timberlake D, Shapiro MF, Goldman DP. Expenditures for the care of HIV-infected patients in the era of highly active antiretroviral therapy. New England Journal of Medicine 2001; 344(11): 817-823.

RCD 94-312

# **Chronic Diseases**

# Off-pump coronary artery bypass improves surgical outcomes

Heart disease is the leading cause of death in the United States and results in an ever-increasing number of cardiac surgeries each year. To help the decision-making process regarding these costly surgical procedures, HSR&D investigators compared the risks and benefits to VA patients who received a coronary artery bypass grafting (CABG-only) procedure using cardiopulmonary bypass (called "on-pump" surgery) compared to the relatively recent technique of operating on a beating heart (referred to as "off-pump"). Data were examined from VAMCs that reflect a higher volume of off-pump procedures and were then compared with other VA cardiac surgery programs to evaluate the impact upon riskadjusted 30-day mortality and morbidity, based upon nine different perioperative complications. Findings from the study show that patients treated off-pump versus on-pump had lower complication rates and lower mortality rates. Thus an off-pump approach to coronary artery bypass grafting procedures appears to be associated with lower risk-adjusted morbidity and mortality in VA. This research has led investigators to work on a new VA study to determine the efficacy of the off-pump procedure on a broader range of patient outcomes.

Plomondon ME, Cleveland JC, Ludwig ST, Grunwald GK, Kiefe CI, Grover FL, Shroyer AL. Off-pump coronary artery bypass is associated with improved risk-adjusted outcomes. Annals of Thoracic Surgery 2001; 72(1):114-119.

IHY 99-214

# **Chronic Diseases**

#### Telemedicine and improving diabetes care

This ongoing study uses an automated telephone disease management (ATDM) system to administer patient assessments and provide self-care education, in between their clinic visits, for veterans with diabetes. The study is a follow-up to the researchers' prior work, in which they evaluated an ATDM system that included automated health assessment and self-care education calls that were followed up by a nurse educator on an as needed basis. After a 12-month intervention, patients reported more frequent glucose self-monitoring and foot inspections, and were more likely to be seen in podiatry and diabetes specialty clinics than patients without the ATDM intervention. The model of automated telephone assessments developed and evaluated in this study could be a cost-effective means for improving clinical decision-making and diabetes treatment outcomes.

Piette JD, Weinberger M, Kraemer FB, McPhee SJ. Impact of automated calls with nurse follow-up on diabetes treatment outcomes in a Department of Veterans Affairs health care system. Diabetes Care 2001; 24(2):202-208.

Piette J. Interactive resources for patient education and support. Diabetes Spectrum 2000; 13: 110-112.

DII 99-187

#### **Chronic Diseases**

# Exercise training improves ability to function in patients with heart failure

Heart failure is a major public health burden in the United States, and despite advances in diagnosis and treatment it remains one of the leading causes of illness and death. Currently, much of the therapy for heart failure is aimed at prolonging life; this nursing research study focuses on improving the quality of that life. Nurse investigators designed a home walking exercise (HWE) program and then compared those who participated in HWE to those who did not. Findings showed a significant difference in the two groups. Those patients who exercised were able to increase the amount of time they could exercise and were better able to perform activities associated with daily living, with less or no symptoms of fatigue and shortness of breath.

Corvera-Tindel TE. A home exercise program increases walking duration and decreases symptoms in heart failure patients. Poster presentation at the VA Rehabilitation Research and Development Conference. Arlington, February, 2002.

Corvera-Tindel TE. Nurse-managed home walking program improves exercise duration and reduces symptoms in heart failure. Poster presentation at the Health Services Research & Development 20th Annual Meeting. Washington, DC, February, 2002.

Corvera-Tindel TE. A home exercise program increases walking duration and decreases symptoms in heart failure patients. Oral Presentation at the American Heart Association 2001 Scientific Sessions. Anaheim, November, 2001.

NRI 96-031

#### **Health Services & Systems**

#### The reliability of rating medical errors

Previously reported statistics have suggested that as many as 98,000 people die each year in US hospitals due to medical errors. This study was designed to determine whether the methods used to arrive at these statistics are reliable by examining how deaths are determined to be "preventable by better care," and by looking at the reliability of rating medical errors. Investigators also estimated the probability of patients living if care had been optimal. Results of the study showed that 22.7 percent of patient deaths were rated as possibly preventable by optimal care, with 6 percent being rated as probably or definitely preventable. However, after considering patients' 3 month prognoses and adjusting for the variability of reviewers' ratings, clinicians estimated that roughly 1 additional patient per 10,000 admissions would have lived three months or more in good health if care had been optimal. Thus, while medical errors are a major concern regardless of a patient's life expectancy, this study suggests that previous interpretations of medical error statistics are probably misleading. This study also points out the limitations in identifying medical errors and assessing their impact on patient outcomes.

Hayward RA, Hofer TP. Estimating hospital deaths due to medical errors: Preventability is in the eye of the reviewer. Journal of the American Medical Association 2001; 286:415-420.

Dr. Timothy Hofer (Co-PI with Dr. Rodney Hayward) is supported by a Career Development Award from HSR&D.

IIR 94-131

# **Health Services & Systems**

# Study shows ICU mortality similar in VA and private sector

Nationally, ICUs comprise nearly 10 percent of all inpatient beds and account for more than 20 percent of all inpatient hospital costs. An HSR&D study was the first to directly compare intensive care unit (ICU) mortality and patients' length of stay in a VA medical center with private sector hospitals. It also examined the impact of hospital length of stay on mortality comparisons. Data collected on ICU admissions covering a two-year period show that after adjusting for the patients' severity of illness, ICU mortality was lower in VA compared to private sector patients. ICU length of stay was similar, however, hospital length of stay was significantly longer in VA patients.

Kaboli PJ, Barnett MJ, Fuehrer SM, Rosenthal GE. Length of stay as a source of bias in comparing performance in VA and private sector facilities: Lessons learned from a regional evaluation of intensive care outcomes. Medical Care 2001; 39(9):1014-1024.

IIR 94-093

#### **Health Services & Systems**

#### Understanding differences in patient characteristics

VHA is committed to administering the SF-36V, a patient assessment tool, on an annual basis to more than 40,000 veteran patients. The SF-36V data are evaluated to provide a summary score of patients' physical and mental health status. Changes in these functional status scores are viewed as changes in patient outcomes that may reflect quality of care. However, differences in patient characteristics among veteran health care facilities need to be considered before VA managers can draw meaningful inferences about facility performance based on these changes. Using three diagnosis-based measures of patient status, investigators in this study compared the measures to determine which one has the greatest predictive power. After making that determination, investigators built a risk-adjustment model that included additional sociodemographic and baseline functional status information. This model allowed comparisons at the network level between observed and adjusted functional status changes. The vast majority (96%) of veteran patients had at least one of the common chronic conditions, and of those, 85% had two or more (comorbidity). This study advances our understanding of the predictors of decline or improvement in patients' functional status.

Jones D, Kazis L, Lee A, Rogers W, Skinner K, Cassar L, Wilson N, Hendricks A. Health status assessments using the Veterans SF-12 and SF-36: Methods for evaluating outcomes in the Veterans Health Administration. Journal of Ambulatory Care Management 2001; 24(3):68-86.

Ren XS, Kazis L, Lee A, Rogers W, Pendergrass S. Health status and satisfaction with health care: A longitudinal study among patients served by the Veterans Health Administration. American Journal of Medical Quality 2001; 16(5):166-173.

IIR 95-019

# **Health Services & Systems**

#### Assessing the effect of managed care on hospitals

Some structural and functional changes within VHA parallel the widespread movement toward managed care that occurred throughout the US health care system. The future of VHA as a viable alternative within this competitive environment requires knowledge concerning the relationship between care management and cost within the new organizational structure. Goals of this study include determining how much cost reduction is actually being achieved through the aggressive practice of reducing the length of hospitalizations, as well as evaluating the cost consequences of changes in treatment settings. Thus far, findings from this study show that facilities more heavily penetrated by the primary care model are slightly more effective at controlling the costs of their sicker patients. This kind of information will aid decision makers in anticipating changes in inpatient and outpatient workload so that they can more effectively manage their budget.

Burgess JF, Christiansen CL, Michalak SE, Morris CN. Medical profiling: Improving standards and risk adjustments using hierarchical models. Journal of Health Economics 2001; 19:291-309.

Carey K. A multilevel modelling approach to analysis of patient costs under managed care. Health Economics 2001; 9:435-446.

MPC 97-008

#### **Health Services & Systems**

#### Teledermatology produces faster results

Previous studies have shown that teledermatology can result in reliable and accurate diagnostic outcomes when compared to dermatology consultations that occur in clinics. This ongoing study focuses on the health services research implications of a teledermatology consult system, such as the time it takes to diagnose and initiate treatment, the proportion of patients that may avoid the need to go to a clinic, as well as the economic implications. Patients in this study receive either usual care or a teledermatology consultation. Patients receiving usual care were scheduled for a clinic visit after their dermatologist reviewed a text-based electronic consult. Patients in the teledermatology arm were either scheduled for a clinic visit, or the consulting dermatologist provided information and recommendations for the referring clinician to implement, thus avoiding the need for a clinic visit. Findings thus far show that the median time to diagnosis and treatment initiation for those patients who received usual care was 127 days compared to 41 days for those participating in teledermatology. The finding that patients are diagnosed and treated sooner via teledermatology may have important implications for quality of care and resource utilization. In health care settings with limited resources, including specialty care, teledermatology may be a way to provide dermatology services, while improving the health care delivery process and patient outcomes.

Whited JD. Teledermatology: Current status and future directions. American Journal of Clinical Dermatology 2001; 2:59-64.

IIR 98-159

#### **Mental Illness**

#### Study examines antipsychotic prescribing practices

Schizophrenia is the second most frequent VA discharge diagnosis. There are effective pharmacologic therapies for schizophrenia. However, while novel (or newer) agents (i.e., risperidone, olanzapine, quetiapine) are more efficacious and have a more favorable side effect profile than conventional antipsychotics, VA facilities have significant variation in prescribing rates for novel antipsychotics. A study conducted through the Mental Health Quality Enhancement Research Initiative (QUERI) Coordinating Center examined prescribing practices in VA medical centers to determine whether patient sociodemographic factors were associated with receiving novel antipsychotic medications compared to those receiving conventional antipsychotics. Investigators found that Caucasians were more likely than non-Caucasians to receive novel antipsychotics (54% vs. 40%). This study also found a higher rate of novel antipsychotic prescribing than reported in other recent studies of patients hospitalized for schizophrenia, but novel antipsychotic use still varied significantly among facilities. Local organizational climates may have a profound effect on prescribing practices. Thus, medication management practices for schizophrenia often are not guidelineconcordant and may place patients at risk for adverse outcomes.

Owen RR, Feng W, Thrush CR, Hudson TJ, Austen MA. Variations in prescribing practices for novel antipsychotic medications among Veterans Affairs hospitals. Psychiatric Services 2001; 52(11):1523-1525.

IIR 98-108

#### **Mental Illness**

#### Treating depression in patients with PTSD

Post-traumatic stress disorder (PTSD) is a serious mental health problem within VA for both male and female veterans. The 40 percent of veterans with PTSD and concurrent clinically significant depression are particularly difficult to treat. Well-validated treatments of PTSD and its complications are rare. Male veterans suffering from both depression and combat-related PTSD, and female veterans with depression and trauma related to sexual assault are participating in this ongoing HSR&D study – the first to evaluate the impact of two psychosocial interventions on clinical outcomes and the use of hospital resources by veterans with these co-existing disorders. Veterans in the study were randomly assigned to one of two therapy programs – both involving short-term group therapy designed to teach them about their disorders and to provide new strategies and skills for overcoming the disorders. Preliminary findings show that nearly 80 percent of the male veterans in the study completed the therapy regimen, and that they felt the course of therapy was beneficial and clear. Female veterans recently completed therapy and their assessments will be available soon. It is anticipated that effective treatment of depression and PTSD will improve veterans' psychiatric symptoms, as well as other aspects of their lives, thus requiring fewer psychiatric and medical services after treatment. If the program proves to be effective, it may become a model for such programs within VA nationally.

Dunn NJ, Yanasak E, Schillaci J, Simotas S, Rehm LP, Souchek J, Menke T, Ashton C, Hamilton JD. Personality disorders in veterans with PTSD and depression. Poster presented at the International Society for Traumatic Stress Studies. New Orleans, December, 2001.

IIR 95-074

# **Sensory Disorders**

#### Adherence to guidelines improves recovery from stroke

Stroke is the leading cause of disability in the United States. In the VA health care system, approximately 10,000 to 13,000 veterans receive inpatient care for stroke annually, and about 70 percent of all stroke survivors receive some type of rehabilitation care. This HSR&D study sought to determine if compliance with post-stroke rehabilitation guidelines is associated with better functional outcomes. Study findings show that those patients who were given post-acute rehabilitation according to guidelines had improved FIM motor, IADL (IADL = Instrumental Activities of Daily Living Scale that includes shopping, food preparation, transportation, etc.), and SIS physical domain scores. Thus, greater levels of adherence to post-acute stroke rehabilitation guidelines are associated with improved patient outcomes. This study also showed differences in the level of guideline compliance based on the rehabilitation setting. For example, compliance within the nursing home setting was substantially worse than for inpatient rehabilitation settings.

Duncan PW, Horner RD, Reker DM, Samsa GP, Hoenig H, Hamilton B, LaClair BJ, Dudley TK. Adherence to post-acute rehabilitation guidelines is associated with functional recovery in stroke. Stroke 2002; 33:167-78.

ACC 97-114

# **Special Populations**

# Study shows black patients admitted to VA hospitals have lower mortality rates

This study indicates that black patients admitted to VA hospitals with common medical diagnoses have lower mortality rates than white patients. Investigators examined racial differences in mortality among more than 35,000 patients admitted to 147 VA hospitals. Thirty-day mortality rates for patients admitted with 1 of 6 common medical diagnoses (angina, chronic obstructive pulmonary disease, congestive heart failure, chronic renal failure, diabetes, and pneumonia) were compared. Study findings show that 30-day mortality was lower among blacks than whites for each of the six medical diagnoses, and that black patients also had lower in-hospital and 6-month mortality rates. This survival advantage is not readily explained, however, it may reflect the benefits of equal access to health care and the quality of inpatient treatment at VA medical centers.

Jha AK, Shlipak MG, Hosmer W, Frances CD, Browner WS. Racial differences in mortality among men hospitalized in the Veterans Affairs Health Care System. Journal of the American Medical Association 2001; 285:297-303.

(Dr. Shlipak is an HSR&D Career Development Awardee. Researchers credit Carol Ashton, MD, MPH and staff at the HSR&D Center for Quality of Care and Utilization Studies for their aid in providing data for the study.)

# **Special Populations**

#### Is patient ethnicity related to ambulatory care use?

In the mid-90s, the VA health care system shifted many of its resources toward ambulatory care. This is the first study to address ambulatory care access and use for minority veterans. The primary goal of this study was to understand racial/ethnic differences in utilization of VA ambulatory care, and the reasons why these variations exist. Findings from this study reveal that there are significant associations between race and the type of outpatient care used (eg., VA only, non-VA only, or both). For example, black and Hispanic veterans are more likely to use VA only ambulatory care as compared with non-Hispanic white veterans and Asian/Pacific Islander veterans. Black and Hispanic veterans are also more likely to be dual VA/non-VA users, and are least likely to use non-VA ambulatory care only. Preferences for, use of, and satisfaction with VA ambulatory care are significantly influenced by race/ethnicity and veteran identity factors, including membership in veterans' organizations and veteran influence on daily life. Black veterans reported worse health status as compared to non-Hispanic white veterans, regardless of socioeconomic status, disease, mental health, or war period served. These findings will be used to develop specific strategies and interventions to improve access and utilization of ambulatory care services for minority veterans.

Harada ND, Damron-Rodriguez J, Villa VM, Washington DL, Dhanani S, Shon H, Chattopadhyay M, Fishbein H, Lee M, Makinodan T, Andersen R. Veteran identity and race/ethnicity: Influences on VA outpatient care utilization. Medical Care 2002; 40 (Supplement 1): I-117-I-128.

Harada ND, Villa VM, Damron-Rodriguez J, Washington DL, Makinodan T, Dhanani S, Shon H, Liu H, Andersen R. The influence of military service on outpatient care use among racial/ethnic groups in Department of Veterans Affairs Medical Centers. Military Medicine; In Press.

Dhanani S, Damron-Rodriguez J, Leung M, Villa V, Washington DL, Makinodan T, Harada ND. Community-based strategies for focus group recruitment of minority veterans. Military Medicine; In Press.

Washington DL, Harada ND, Villa VM, Damron-Rodriguez J, Shon H, Dhanani S, Makinodan T. Racial variations in VA ambulatory care use and unmet health care needs. Military Medicine; In Press.

Harada ND, Villa VM, Andersen R. Satisfaction with VA and non-VA outpatient care among veterans. American Journal of Medical Quality 2002; 17(4); In Press.

ECV 97-028

# **Special Populations**

# How ethnicity may affect patient choices in the care of osteoarthritis

Previous studies report that African-American patients are much less likely than white patients to receive total joint replacement for osteoarthritis of the hip or knee – the leading cause of disability among veterans. This HSR&D study assessed ethnic variation in regard to surgical choices and found that African-American veterans with chronic knee/hip pain were less likely than white veterans to consider joint replacement as a treatment option. African-Americans were more likely to expect worse outcomes following joint replacement, such as pain and functional disability following surgery and a longer hospital stay. African-Americans were also more likely to consider alternative therapies, such as prayer, as effective treatments for arthritis. Patients that viewed prayer as helpful to their condition were less likely to consider joint replacement. This study has provided important insight into the cultural factors that may account for variations in patient decision-making regarding joint replacement for veterans with osteoarthritis.

Ibrahim SA, Burant CJ, Siminoff LS, Kwoh CK. Understanding ethnic differences in the utilization of joint replacement for osteoarthritis: The role of patient-level factors. Medical Care 2002; 40 (1 suppl):I44-I51.

Ibrahim SA, Burant CJ, Siminoff LA, Kwoh CK. Variation in perceptions of treatment and self-care practices in the elderly with osteoarthritis: A comparison between African-Americans and white patients. Arthritis Care & Research 2001; 45(4):398-403.

Ibrahim SA, Burant CJ, Siminoff LS, Kwoh CK. Ethnic differences in patients' perceptions on quality of life: A study of elderly patients with osteoarthritis. Journal of Clinical Epidemiology 2002; In Press.

Ibrahim SA, Burant CJ, Siminoff LS, Kwoh CK. Differences in expectations on outcomes mediate African American/white differences in 'willingness' to consider joint replacement. Arthritis and Rheumatism 2002; In Press.

ECV 97-014

# **Substance Abuse, Addictive Disorders**

#### Working to improve the quality of substance abuse care

The economic cost of drug and alcohol abuse in the US is estimated to be more than \$150 billion per year, with an additional \$50 billion stemming from tobacco use. Substance use disorders are also prevalent and extremely costly among the veteran population. In FY 2000, 21 percent of all VA inpatients and 32 percent of all VA extended care patients had substance abuse or dependence diagnoses. That same year, almost 324,000 VA outpatients had substance abuse diagnoses. Because of the high prevalence and cost of substance abuse among veteran patients, HSR&D's Quality Enhancement Research Initiative (QUERI) Substance Abuse group is focusing on these disorders. The QUERI Substance Abuse group has produced recent findings that include: the cost effectiveness of methadone and buprenorphine for the treatment of opioid dependence; the effectiveness of continuing outpatient care and self-help group involvement; and factors related to deterioration among patients in treatment for substance abuse.

Barnett PG, Zaric GS, Brandeau ML. The cost-effectiveness of buprenorphine maintenance therapy for opiate addiction in the United States. Addiction 2001; 96:1267-1278.

Willenbring ML. New guideline for the management of substance-abuse disorders nearing completion. Psychiatric Times 2001;18:16-17.

Fiellin DA, Rosenheck RA, Kosten TR. Office-based treatment for opioid dependence: reaching new patient populations. American Journal of Psychiatry 2001; 158:1200-1204.

Moos RH, Moos BS, Finney JW. Predictors of deterioration among patients with substance use disorders. Journal of Clinical Psychology 2001; 57:1403-1419.

Finney JW, Willenbring ML, Moos RH. Improving the quality of VA care for patients with substance use disorders: The Quality Enhancement Research Initiative (QUERI) Substance Abuse Module. Medical Care 2000; 38:105-113.

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SDR 98-000

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