

## EDITOR'S NOTE

This column reflects our commitment to provide you, the primary care physician, with information that will prove helpful in making informed decisions about the care of your patients who suffer from psychiatric disorders. We will highlight abstracts of high interest to you from our sister publication, *The Journal of Clinical Psychiatry*, and summarize pertinent articles from the general scientific literature. We hope that this section is clinically relevant to your practice and that it will encourage you to expand your horizons.

## Treatment of Elderly and Other Adult Patients for Depression in Primary Care

Fischer LR, Wei F, Solberg LI, et al.

**Background:** The purpose of this study was to determine whether depression is treated differently in older and younger patients in primary care clinics. **Method:** Patients with a depression diagnosis code were identified via administrative data. Baseline and 3-month follow-up survey, chart audit, and the health plan electronic database data were collected from 9 primary care clinics owned by a health maintenance organization in the midwestern United States. The study sample (N = 1023) consisted of adult patients, aged 19 to 93 years, and was divided into 6 age groups, from young adult, under age 35 years, to old-old, age 75 years or older. Independent study variables included a series of dummy variables: sex, age groups, baseline depression severity, and incident depression. Outcomes were defined as improvement in depression symptoms (Center for Epidemiologic Studies-Depression scale short form) and care processes (assessment resources). Patient characteristics, depression symptoms, and care process variables were analyzed via univariate and multivariate logistic regression. Significance level was reported using chi-square test of probability ( $p \leq .05$ ). **Results:** Adjusted response rates to the baseline and follow-up surveys were 69% and 82%. Elderly depressed patients were more likely than younger depressed patients to be widowed, have low levels of education, have fair or poor health, and have 3 or more comorbid health problems. No differences were found by age in number of depressive symptoms, antidepressant treatment, or recommendation for a follow-up appointment. Older patients were less likely to have a new diagnosis of depression and to report being depressed most of the year than younger patients. Providers were only 6% as likely to ask old-old depressed patients about suicide risk, about one fifth as likely to ask if they felt depressed, one twentieth as likely to ask about a problem with alcohol, and about one fourth as likely to refer them to a mental health therapist as they were with young adult depressed patients. Old-old depressed patients were about one third as likely to report improvement in depression symptoms after 3 months as the young adult patients. **Conclusion:** Study results indicate a possible pattern of underattention to oldest depressed patients. The failure of physicians to ask about suicide risk is of particular concern given the high suicide rate of depressed geriatric patients. The concept of invisibility of the ordinary may explain, in part, the finding that physicians are less likely to focus on depression with old-old patients.

(*J Am Geriatr Soc* 2003;51:1554-1562)

## Cross-National Comparisons of Seafood Consumption and Rates of Bipolar Disorders

Noaghiul S, Hibbeln JR

**Background:** The purpose of this study was to determine if greater seafood consumption (omega-3 fatty acid intake) is associated with lower prevalence rates of bipolar disorders in community samples. **Method:** Population-based epidemiologic studies that used similar methods were used to identify lifetime prevalence rates of bipolar I disorder, bipolar II disorder, bipolar spectrum disorder, and schizophrenia in various countries. These studies used structured diagnostic interviews with similar diagnostic criteria and had large sample sizes. Prevalence data were compared with differences in apparent seafood consumption (an economic measure of disappearance of seafood from the economy) using simple linear and nonlinear regression analyses. **Results:** Simple exponential decay regressions showed that greater seafood consumption predicted lower lifetime prevalence rates of bipolar I disorder, bipolar II disorder, and bipolar spectrum disorder. There was an apparent vulnerability threshold below 50 lb (22.5 kg) of seafood/person/year for bipolar II disorder and bipolar spectrum disorder. A specificity to affective disorders is suggested by the absence of a correlation between lifetime prevalence rates of schizophrenia and seafood consumption. **Conclusions:** A robust correlational relationship between greater seafood consumption and lower prevalence rates of bipolar disorders is described by these data. The data also provide a cross-national context for understanding ongoing clinical intervention trials of omega-3 fatty acids in bipolar disorders.

(*Am J Psychiatry* 2003;160:2222-2227)

### Aerobic Endurance Exercise Improves Executive Functions in Depressed Patients

Kubesch S, Bretschneider V, Freudenmann R, et al.

**Background:** Aerobic endurance exercise has been shown to improve higher cognitive functions such as executive control in healthy subjects. We tested the hypothesis that a 30-minute individually customized endurance exercise program has the potential to enhance executive functions in patients with major depressive disorder. **Method:** In a randomized within-subject study design, 24 patients with DSM-IV major depressive disorder and 10 healthy control subjects performed 30 minutes of aerobic endurance exercise at 2 different workload levels of 40% and 60% of their predetermined individual 4-mmol/L lactic acid exercise capacity. They were then tested with 4 standardized computerized neuropsychological paradigms measuring executive control functions: the task switch paradigm, flanker task, Stroop task, and GoNogo task. Performance was measured by reaction time. Data were gathered between fall 2000 and spring 2002. **Results:** While there were no significant exercise-dependent alterations in reaction time in the control group, for depressive patients we observed a significant decrease in mean reaction time for the congruent Stroop task condition at the 60% energy level ( $p = .016$ ), for the incongruent Stroop task condition at the 40% energy level ( $p = .02$ ), and for the GoNogo task at both energy levels (40%,  $p = .025$ ; 60%,  $p = .048$ ). The exercise procedures had no significant effect on reaction time in the task switch paradigm or the flanker task. **Conclusion:** A single 30-minute aerobic endurance exercise program performed by depressed patients has positive effects on executive control processes that appear to be specifically subserved by the anterior cingulate.

(*J Clin Psychiatry* 2003;64:1005–1012)

### Chronic Pain and Poor Self-Rated Health

Mäntyselkä PT, Turunen JHO, Ahonen RS, et al.

**Background:** Self-rated health is an important indicator of morbidity and mortality, and chronic pain is common in Western societies. There is not much information, however, regarding the relation between chronic pain and self-rated health in the general population. This study analyzed the association between chronic pain and self-rated health. **Method:** In the spring of 2002, a questionnaire was given to an age- and sex-stratified population sample of 6500 subjects in Finland aged 15 to 74 years. The response rate was 71% ( $N = 4542$ ) after those with unobtainable data ( $N = 38$ ) were excluded. Analysis included age, sex, education, working status, chronic diseases, and mood. Chronic pain was defined as pain lasting at  $\geq 3$  months and was graded by frequency: (1) at most once a week, (2) several times a week, and (3) daily or continuously. Subjects were classified as having good, moderate, or poor health on the basis of a 5-item questionnaire on self-rated health. Determinants of health were assessed via multinomial logistic regression analysis. Main outcome measures included perceived chronic pain graded by frequency and self-rated health status. **Results:** Prevalence of any chronic pain was 35.1% and of daily chronic pain, 14.3%. Prevalence of moderate self-rated health was 26.6% and of poor health, 7.6%. Regarding moderate self-rated health of subjects having chronic pain at most once a week compared with subjects having no chronic pain, the adjusted odds were 1.36 (95% confidence interval [CI] = 1.05 to 1.76); several times a week, 2.41 (95% CI = 1.94 to 3.00); and daily, 3.69 (95% CI = 2.97 to 4.59). Poor self-rated health odds in-

cluded having chronic pain at most once a week, 1.16 (95% CI = 0.65 to 2.07); several times a week, 2.62 (95% CI = 1.76 to 3.90); and daily, 11.82 (95% CI = 8.67 to 16.10). **Conclusion:** In the general population, chronic pain is independently related to low self-rated health.

(*JAMA* 2003;290:2435–2442)

### A 5-Year Follow-Up of General Practice Patients Experiencing Depression

Wilson I, Duszynski K, Mant A

**Background:** Depression produces significant morbidity in the community and commonly presents in the primary care setting. Data on outcomes of depression in general practice are scarce. This study explored the longitudinal management and outcomes of depression in general practice. **Method:** The Medic-GP database, a collection of the medical records of  $> 50,000$  patients seen in 9 Australian general practices, was used to follow the management of depressed patients over 4 to 5 years. Records from 1994 to 1995 were searched for the term *depression* or similar words, and individual patient records that mentioned depression were randomly selected and examined to determine if a depression diagnosis was made. Records of patients who were diagnosed as suffering from depression were examined to determine progress over the next 5 years. **Results:** Of the 5889 records identified, a total of 600 were examined in detail. A total of 382 patients (63.7%) were diagnosed with depression; 219 had been diagnosed during this time interval. Main study findings were as follows: 64.7% of patients were female, 16% of patients were referred to a psychiatrist, 7.3% of patients were hospitalized, 93.6% of patients received an antidepressant at some time during the study, 30% of patients who ceased antidepressants without a recurrence had courses of antidepressants of 3 months or less, and 22.5% of patients had a single episode of depression. **Conclusion:** This study, unlike cross-sectional studies, showed a high rate of prescription of antidepressants. Often, general practitioners prescribed short courses of antidepressants, and depression is a chronic, recurrent disease.

(*Fam Pract* 2003;20:685–689)

### Diagnosis and Management of Posttraumatic Stress Disorder

Grinage BD

Although posttraumatic stress disorder (PTSD) frequently goes undiagnosed, this debilitating anxiety disorder may cause significant distress and increased use of health resources. In the United States, the lifetime prevalence of PTSD is 8% to 9%; approximately 25% to 30% of victims of significant trauma develop the disorder. Physical and emotional symptoms of PTSD occur in 3 clusters: increased symptoms of arousal, marked avoidance of usual activities, and reexperiencing the trauma. The patient's symptoms must last for more than 1 month and significantly disrupt normal activities before a diagnosis of PTSD can be made. Of patients with PTSD, 80% have at least 1 comorbid psychiatric disorder; the most common include depression, other anxiety disorders, and alcohol and drug abuse. A multidimensional approach is the mainstay of treatment and includes cognitive behavior therapy, patient education, and psychopharmacology. Selective serotonin reuptake inhibitors are often the pharmacologic treatment of choice.

(*Am Fam Physician* 2003;68:2401–2408,2409)

### The Economic Burden of Depression in the United States: How Did It Change Between 1990 and 2000?

Greenberg PE, Kessler RC, Birnbaum HG, et al.

**Background:** The economic burden of depression was estimated to be \$43.7 billion in 1990. A subsequent study reported a cost burden of \$52.9 billion using revised prevalence data and a refined workplace cost estimation approach. The objective of the current report is to provide a 10-year update of these estimates using the same methodological framework. **Method:** Using a human capital approach, we developed prevalence-based estimates of 3 major cost categories: (1) direct costs, (2) mortality costs arising from depression-related suicides, and (3) costs associated with depression in the workplace. Cost-of-illness estimates from 1990 were updated to reflect the experience in 2000 using current epidemiologic data and publicly available population, wage, and cost information. **Results:** Whereas the treatment rate of depression increased by over 50%, its economic burden rose by only 7%, going from \$77.4 billion in 1990 (inflation-adjusted dollars) to \$83.1 billion in 2000. Of the 2000 total, \$26.1 billion (31%) were direct medical costs, \$5.4 billion (7%) were suicide-related mortality costs, and \$51.5 billion (62%) were workplace costs. **Conclusion:** The economic burden of depression remained relatively stable between 1990 and 2000, despite a dramatic increase in the proportion of depression sufferers who received treatment. Future research will incorporate additional costs associated with depression sufferers, including the excess costs of their coexisting psychiatric and medical conditions and attention to the role of painful conditions as a driver of these costs.

(*J Clin Psychiatry* 2003;64:1465-1475)

### Effectiveness and Cost of Olanzapine and Haloperidol in the Treatment of Schizophrenia: A Randomized Controlled Trial

Rosenheck R, Perlick D, Bingham S, et al.

**Background:** Olanzapine is often the treatment of choice for schizophrenia. The objective of this double-blind, randomized controlled trial was to evaluate the effectiveness and cost impact of olanzapine compared with haloperidol in the treatment of schizophrenia. **Method:** Three hundred nine patients at 17 U.S. Department of Veterans Affairs (VA) medical centers participated in the study between June 1998 and June 2000. All study participants had a DSM-IV diagnosis of schizophrenia or schizoaffective disorder, serious symptoms, and serious dysfunction for the previous 2 years. Patients were randomly assigned to receive a flexible dose of olanzapine, 5 to 20 mg/day, with prophylactic benztropine, 1 to 4 mg/day (N = 159); or haloperidol, 5 to 20 mg/day (N = 150), for 12 months. Of the participants, 59% fully completed and 36% partially completed follow-up assessments. Main outcome measures included standardized measures of symptoms, neurocognitive status, adverse effects of medication, and quality of life. Interviews concerning non-VA service use as well as VA administrative data were used to estimate costs from the perspective of society as a whole (i.e.,

consumption of all resources on behalf of these patients) as well as the VA health care system. **Results:** No significant differences were found between groups in positive, negative, or total symptoms of schizophrenia; extrapyramidal symptoms; study retention; or quality of life. Small but significant advantages were observed for olanzapine on measures of memory and motor function. Olanzapine was associated with reduced akathisia in the intention-to-treat analysis ( $p < .001$ ). Lower symptoms of tardive dyskinesia were associated with olanzapine in a secondary analysis including only observations during blinded treatment with study drug. Differences in societal costs were small and not significant. Olanzapine was associated with significantly greater costs (\$3000 to \$9000 annually) and more frequent reports of weight gain. **Conclusion:** Olanzapine is not advantageous compared with haloperidol (in combination with prophylactic benztropine) in symptoms, extrapyramidal symptoms, compliance, or overall quality of life. The benefits of olanzapine in reducing akathisia and improving cognition must be balanced with the problems of higher cost and weight gain.

(*JAMA* 2003;290:2693-2702)

### The Use of Atypical Antipsychotics in Nursing Homes

Liperoti R, Mor V, Lapane KL, et al.

**Background:** Use of atypical antipsychotics for "off-label" indications, such as behavioral and psychological symptoms of dementia, depression, and bipolar disorder, have been frequently reported, although not systematically studied. We describe the pattern of atypical antipsychotic use among nursing home residents and identify demographic and clinical correlates. **Method:** We conducted a cross-sectional study on 139,714 nursing home residents living in 1732 nursing homes in 5 U.S. states from Jan. 1, 1999, to Jan. 31, 2000. Data were obtained from the computerized Minimum Data Set (MDS) assessment records. **Results:** Behavior problems associated with cognitive impairment were manifest in 86,514 residents, and, of these, 18.2% received an antipsychotic. Approximately 11% received an atypical antipsychotic, while 6.8% received a conventional agent. Clinical correlates of atypical antipsychotic use were Parkinson's disease (adjusted odds ratio [OR] = 1.57, 95% confidence interval [CI] = 1.34 to 1.84), depression (OR = 1.35, 95% CI = 1.24 to 1.46), antidepressant use (OR = 1.38, 95% CI = 1.27 to 1.49), Alzheimer's disease (OR = 1.21, 95% CI = 1.12 to 1.32), non-Alzheimer dementia (OR = 1.15, 95% CI = 1.07 to 1.24), and cholinesterase inhibitor use (OR = 1.74, 95% CI = 1.52 to 1.98). Severe functional impairment was inversely related to atypical antipsychotic use (OR = 0.76, 95% CI = 0.65 to 0.89). **Conclusion:** Atypical antipsychotics are now used more than conventional antipsychotic agents in U.S. nursing homes. Indications and dosages seem appropriate relative to labeling. Clinical and demographic differences between atypical and conventional antipsychotic users tend to be relatively small, suggesting that other factors may explain the choice of prescribing physicians. The impact of facility factors, economic forces, and physician characteristics needs to be investigated.

(*J Clin Psychiatry* 2003;64:1106-1112)