Alcohol, Other Drugs, and Health: Current Evidence

Interventions and Assessments

Brief Alcohol Counseling in the Emergency Department: The Details May Matter

Studies on the efficacy of brief alcohol counseling in emergency departments (EDs) have yielded mixed results. In a controlled clinical study, investigators randomized 494 patients identified by screening as consuming risky amounts of alcohol (12–14 drinks per week on average at baseline), or as having injury and alcohol use, to either participate in a brief negotiated interview with ED practitioners or to receive scripted discharge instructions about health behaviors including alcohol use. Likely alcohol or drug dependent individuals were excluded.

- At 12 months, with 92% follow-up, drinking decreased (for example, by 2 heavy drinking episodes per month) but did not differ significantly by group.
- There were also no differences between groups in consumption of risky amounts, number of drinks per week, driving after drinking, injury while drinking, missed work, contact with the legal system, alcohol treatment, or readiness to change.

Comments: In primary care settings, brief counseling for excessive alcohol use has efficacy for decreasing consumption. In this study, brief clinician counseling in the ED had no more efficacy than simple instructions. Editorialists enumerated possible explanations for why the findings were negative (e.g., the relatively mildly affected population, the clinician, intervention effects in the control group from simple discharge instructions). They and the authors call for further research to sort it out. In the meantime, universal screening is recommended in primary care settings. Although excessive drinking should be identified and addressed in emergency settings too, how best to do it on a large scale remains less clear.

Richard Saitz MD, MPH

References: D'Onofrio G, Pantalon MV, Degutis LC, et al. Brief intervention for hazardous and harmful drinkers in the emergency department. *Ann Emerg Med.* 2008;51(6):742–750.

Bernstein E, Bernstein J. Effectiveness of alcohol screening and brief motivational intervention in the emergency department setting. *Ann Emerg Med.* 2008;51(6):751–754.

Telephone-based Stepped Care for Unhealthy Alcohol Use

Telephone-based, stepped care strategies have the potential to improve delivery of alcohol interventions in primary care settings. In a controlled trial, researchers randomized 408 primary care patients with at-risk drinking,* heavy drinking,** alcohol abuse, and alcohol dependence to full care (computerized feedback plus four 30-minute telephone interventions), stepped care (computerized feedback plus up to three 40-minute telephone inter- ventions, depending on response), or a control group (no alcohol intervention). Telephone interventions were based on motivational interviewing and delivered by trained psychologists.

- The baseline ranges of unhealthy alcohol use levels among the 3 arms were as follows:

Telephone-based Stepped Care (continued from page 1)

- heavy drinking, 24–30%
- alcohol abuse, 12–17%
- alcohol dependence, 26–38%
- Compared with controls, participants in the intervention groups (full care and stepped care combined) reported a greater decrease in grams of alcohol per day from baseline to 12 months (-12.6 versus -6.3 in the overall sample; -17.9 versus -3.7 in the alcohol abuse/at-risk drinking subgroup) and a lower proportion of binge drinking at 12 months (25% versus 41%) in the alcohol abuse/at-risk drinking subgroup.
- Outcomes did not differ between the control and intervention groups for subjects with alcohol dependence or heavy drinking.
- Outcomes were similar in the full care and stepped care groups.
- The stepped care group received 50% of the counseling time (40 versus 80 minutes) received by the full care group.

Comments: These findings suggest a combination of computerized feedback and telephone-based interventions has the potential to decrease alcohol use in primary care patients. "As-needed" telephone intervention sessions appear to be as effective as "fixed" doses of telephone counseling for patients with alcohol abuse/at-risk drinking, but neither was effective for alcohol dependence and heavy drinking. It is not known how this type of intervention would fare in a direct comparison with face-to-face briefer interventions, which can be effective for nondependent at-risk drinking.

Kevin L. Kraemer, MD, MSc

*defined as >30 grams of alcohol (about 3 drinks) per day on average for men and >20 grams of alcohol (about 2 drinks) per day for women over the past 4 weeks.

**defined as >80 grams of alcohol (about 8 drinks) for men and >60 grams of alcohol (about 6 drinks) for women on 2 or more occasions over the past 4 weeks.

Reference: Bischof G, Grothues JM, Reinhardt S, et al. Evaluation of a telephone-based stepped care intervention for alcohol-related disorders: a randomized controlled trial. *Drug Alcohol Depend.* 2008;93 (3):244–251.

Methadone Detoxification Remains No Match for Methadone Maintenance, Even with Minimal Counseling

No controlled studies have compared short-term methadone maintenance (MM) to methadone detoxification (MD), although it is known that open-ended MM is more effective than MD. Gruber et al. took advantage of a randomized controlled trial (RCT) assessing the effect of 6-month MM on adherence to latent tuberculosis therapy to compare 21-day MD to 6-month MM with either minimal or standard counseling.

In this RCT (n=111), outcomes were substance use and depressive symptoms. Doses of methadone were between 60 and 90 mg per day. Minimal counseling involved a single 15-minute session per month with no contingencies (e.g., take-home medication). Standard counseling involved 2 sessions per month (more, if needed, as determined by the counselor) with the opportunity to earn take-home medications. The majority of subjects were male, nonwhite, poor, and not interested in stopping heroin but rather in cutting down on use.

- Compared with 6-week MD, 6-month MM resulted in a greater

Methadone Detoxification versus Methadone Maintenance (continued from page 2)

decrease from baseline in self-reported opiate use, opiate positive urines, and days of alcohol use.

- No difference between groups was found for cocaine use or depressive symptoms. Results for MM with standard counseling did not differ from those for MM with minimal counseling.

Comments: These findings show once again that the duration of time on methadone therapy is key to the benefits received, mainly with regard to opiate-related outcomes. As the treatment groups were quite small, few conclusions can be drawn concerning the lack of differences noted between counseling intensity in the 6-month MM groups.

Jeffrey H. Samet, MD, MA, MPH

Reference: Gruber VA, Delucchi KL, Kielstein A, et al. A randomized trial of 6-month methadone maintenance with standard or minimal counseling versus 21-day methadone detoxification. *Drug Alcohol Depend.* 2008;94(1–3):199–206.

Naltrexone Implantation versus Methadone Maintenance for Heroin Dependence: Impact on Drug-Related Hospitalization

Long-lasting formulations of naltrexone are increasingly used in treating opioid dependence, but their long-term safety and effectiveness compared with methadone maintenance (MM) are uncertain. In a retrospective longitudinal study using data from comprehensive regional hospital records, researchers in Western Australia compared drug-use–related outcomes in heroin-dependent persons preceding and following treatment with either naltrexone implantation therapy (NIT) (n=314) requiring reimplantation every 6 months or MM (n=522) over similar time periods. Results were as follows:

- Patients treated with NIT had a substantial decrease in opioid overdose admissions (odds ratio [OR], 0.23) at 3½ years, and had a marked increase in nonopioid overdose admissions at 6 months (OR, 16.3) that did not persist after 3½ years of follow-up.
- Other nonopioid-related admissions also increased in the NIT group at 6 months and 3½ years (OR, 2.54 and 1.52, respectively).
- Patients treated with MM had no change in opioid over-

dose admissions, and had an increase in nonopioid overdose admissions at 6 months (OR, 5.03) that did not persist after 3½ years of follow-up.

Comments: Implantable naltrexone may be associated with reductions in opioid overdose, but substantial increases in adverse outcomes associated with nonopioid drug use were observed. Although pre- and posttreatment comparisons are appropriately made using these data, the study design does not allow for meaningful comparisons between NIT and MM groups, nor was it powered to look at mortality. Prospective assessment of diverse outcomes is needed to better define the effectiveness of NIT. Clinicians must be alert to increases in nonopioid drug use among heroin users initiating pharmacotherapy for opioid dependence.

Marc N. Gourevitch, MD, MPH

Reference: Ngo HT, Tait RJ, Hulse GK. Comparing drug-related hospital morbidity following heroin dependence treatment with methadone maintenance or naltrexone implantation. *Arch Gen Psychiatry.* 2008;65(4):457–465.

Understanding of Risks and Benefits of Moderate Alcohol Intake is Low

Patient understanding of the relationship between moderate alcohol use and health is not well known. To explore patient preferences and understanding regarding this association, researchers surveyed 878 outpatients at a single urban medical center providing primary and tertiary care. Participants completed a self-administered anonymous survey regarding their medical history, usual alcohol consumption, and preferences and opinions regarding moderate drinking (defined as 1 drink every 1–2 days).

- Approximately two-thirds of respondents reported current alcohol consumption. Of these, 50% drank less than weekly, 25% drank 1–2 days per week, 17% drank

3–6 days per week, and 8% drank daily.
- Most current drinkers believed that drinking is safe (62%) and that drinking in moderation is healthy (61%), while most current abstainers disagreed with these statements (64% and 65%, respectively).
- Among current drinkers, prevention of health problems was endorsed by 36% of respondents as a motivation to drink alcohol, compared with enjoyment (87%), relaxation (79%), or socialization (76%). Those who cited prevention of health problems tended to be older and consumed alcohol more frequently, but

Understanding of Relationship between Alcohol and Health Low (continued from page 3)

they consumed less per drinking day and were more likely to have coronary heart disease.

- Regarding the association between moderate drinking and specific health conditions,

  - a minority of participants (1–32%) believed that moderate drinking prevented any health condition, even myocardial infarction (32% among drinkers and 27% among abstainers).
  - slightly more than half of both abstainers and drinkers believed that 1 drink every 1–2 days could cause liver damage and birth defects.
  - abstainers were approximately twice as likely as drinkers to believe that 1 drink every 1–2 days causes myocardial infarction, stroke, gallstones, and diabetes.

  - only about 10% of participants identified breast cancer as a possible risk of moderate drinking.

- Forty-five percent of abstainers and 30% of drinkers agreed to some extent with the statement that moderate drinking can lead to alcoholism.

Comments: Understanding of the potential risks and benefits of moderate alcohol intake appears to be low. Thus, clinicians have a particular opportunity to provide education and counseling with regard to alcohol use, misuse, and health.

Julia H. Arnsten, MD, MPH

Reference: Mukamal KJ, Phillips RS, Mittleman MA. Beliefs, motivations, and opinions about moderate drinking: a cross-sectional survey. *Fam Med.* 2008;40(3):188–195.

Substance Abuse Treatment among Patients with HIV and Mental Illness

Untreated substance use and mental health conditions are associated with increased HIV transmission risk, decreased adherence to highly active antiretroviral therapy (HAART), and poor response to HAART. Researchers sought to determine the receipt of substance abuse and mental health treatment over a 3-month period in a cohort of 803 HIV infected individuals who met diagnostic criteria for substance use and mental health disorders. Primary findings were as follows:

- Forty-seven percent of subjects had drug and alcohol dependence, 33% had drug dependence, 15% had alcohol dependence, and 5% had drug and/or alcohol abuse but not dependence.

- Only 33 percent had received concurrent treatment for substance abuse and mental illness in the past 3 months; 26 percent had received only mental health services, 15 percent had received only substance abuse services, and 26 percent had received no services.

- Use of concurrent substance abuse and mental health services was lower among nonwhites and Hispanics (p<0.05) but was positively associated with Veterans

Affairs' Civilian Health and Medical Program of the Uniformed Services (VA CHAMPUS) insurance coverage (p<0.05).

- African American, Hispanic, and nonwhite subjects were more likely to use self-help groups than white non-Hispanic subjects (p<0. 001).

Comments: The low use and racial disparities seen in the receipt of substance-abuse treatment services among patients diagnosed with HIV infection, substance abuse, and mental health disorders is concerning. These findings have implications for the individual and the public. Strategies to make substance-abuse treatment services more attractive, more available, and more effective are needed to address the issues highlighted in this study.

David A. Fiellin, MD

Reference: Weaver MR, Conover CJ, Proescholdbell RJ, et al. Cost Subcommittee of the HIV/AIDS Treatment Adherence, Health Outcomes, and Cost Study Group. Utilization of mental health and substance abuse care for people living with HIV/AIDS, chronic mental illness, and substance abuse disorders. *J Acquir Immune Defic Syndr.* 2008;47(4):449–458.

Patient/Physician Discussion of Alcohol Use Is Low among HIV-infected Patients with Problem Drinking

To develop effective interventions addressing alcohol use disorders in the HIV primary care setting, it is necessary to understand the frequency and extent of patient/provider discussions of alcohol use. In a cross-sectional study, researchers analyzed data from 1225 HIV-positive patients attending 10 HIV primary care

clinics in 3 US cities to determine the extent to which alcohol use was discussed with their primary care providers.

More than half (57.6%) of respondents reported using alcohol in the past 6 months: 25.3% reported using it less than 1 day per week, 18% reported using it 1–2

Discussion of Alcohol Use among HIV-infected Patients (continued from page 4)

days per week, 10% reported using it 3–6 days per week, and 4.3% reported using it about every day. Based on CAGE responses, 22% of respondents had problem drinking, one-third drank without problems, and the remainder did not drink.

- Respondents discussed alcohol use most frequently with their primary care providers (35.3%), followed by other professionals (18.4%) and support groups (17.8%).
- Rates of alcohol discussion increased from nondrinkers (24%), to patients without problem drinking (39%), to patients with problem drinking (52%). In multivariable analysis, those who drank alcohol (with and without alcohol problems) were more likely to discuss alcohol use with their primary care provider than nondrinkers.
- In addition to drinking behavior, other factors independently associated with discussing alcohol

use included male sex, age younger than 40 years, non-Hispanic ethnicity, better perception of engagement with the HIV provider, and worse self-reported general health status.

Comments: Although patients with problem drinking were more likely to discuss alcohol use with their primary care providers than nondrinkers, only half of such patients reported a discussion. These findings reinforce the need to increase the focus on alcohol use in the HIV primary care setting. Although HIV primary care providers are faced with many demands, they should be encouraged to screen for and counsel patients about alcohol use.

Julia H. Arnsten, MD, MPH

Reference: Metsch LR, Pereyra M, Colfax G, et al. HIV-positive patients' discussion of alcohol use with their HIV primary care providers. *Drug Alcohol Depend.* 2008;95(1–2):37–44.

HEALTH OUTCOMES

Hemoglobin A1C Levels Are Lower among People with Diabetes Who Consume Alcohol

Few studies measuring the effects of alcohol consumption on glycemic control in patients with diabetes have been undertaken. To assess this association, investigators conducted a follow-up survey of 38,564 adult patients with diabetes included in the Kaiser Permanente Northern California Diabetes Registry. The surveys, which were conducted between 1994 and 1997, assessed alcohol consumption based on a modified AUDIT-C* questionnaire. Hemoglobin A1C (A1C) was assessed within 1 year of the survey date for each participant. Multivariable analyses were adjusted for sociodemographic and clinical variables and disease severity.

- Alcohol consumption was linearly and inversely associated with A1C (see table, right).

Comments: This study suggests that alcohol intake is associated with significantly lower levels of A1C, a summary measure of glycemic control. As stated by the authors, earlier research has shown that a 1-point reduction in A1C is associated with a 21% reduction of the risk of diabetes complications and a 37% reduction in the risk of microvascular complications. Thus, the decrease in A1C levels associated with alcohol use in this study, if not due to uncontrolled confounding or the cross-sectional design, could translate into clinically important reductions in

diabetes complications for some people with diabetes who drink moderately.

R. Curtis Ellison, MD

*Alcohol Use Disorders Identification Test—Consumption

Reference: Ahmed AT, Karter AJ, Warton EM, et al. The relationship between alcohol consumption and glycemic control among patients with diabetes: the Kaiser Permanente Northern California Diabetes Registry. *J Gen Intern Med.* 2008;23(3):275–282.

Average number of drinks consumed daily	Mean A1C value
0 (lifetime abstainers)	8.88
0 (former drinkers)	8.79
<0.1	8.90
0.1–0.9	8.71
1–1.9	8.51
2–2.9	8.39
≥3	8.47

What Are the Risks of Risky Drinking?

To examine the adverse consequences of risky drinking,* researchers assessed baseline drinking among 22,122 adult national survey participants who had consumed at least 1 drink in the year preceding the baseline interview, and measured the 3-year incidence of selected outcomes.

- At baseline, 60% of subjects reported no risky drinking. Seventeen percent reported risky drinking <1 time per month; 9%, 1 to 3 times per month; 8%, 1 to 2 times per week; 3%, 3 to 4 times per week; and 3%, daily or near daily.
- The risk for adverse consequences increased as the frequency of risky drinking increased. In adjusted analyses, participants who reported risky drinking 1 to 2 times per week were more likely than those who reported no risky drinking to have incident alcohol abuse (odds ratio [OR], 3.3); alcohol dependence (OR, 2.7); drug use (OR, 1.6); drug dependence (OR, 2.3); tobacco use (OR, 2.7); nicotine dependence (OR, 1.8); and any liver disease (OR, 2.8). They were also more

likely to divorce or separate (OR, 1.3) and lose their driver's licenses (OR, 1.8).

- In similar analyses, the risk for adverse consequences was generally higher in subjects who reported risky drinking on a daily or near-daily basis.

Comments: This study demonstrates increased risk for a wide range of adverse consequences with increasing frequency of heavy episodic drinking. The results support the need to identify individuals with risky drinking; to intervene; and to monitor for alcohol, drug, tobacco, medical, and social problems. Interestingly, frequency of risky drinking was not associated with mood and anxiety disorders in this study.

Kevin L. Kraemer, MD, MSc

*In this paper, risky drinking was defined as 5+ drinks in a day for men and 4+ drinks in a day for women.

Reference: Dawson DA, Li TK, Grant BF. A prospective study of risk drinking: at risk for what? *Drug Alcohol Depend.* 2008;95(1–2):62–72.

Predicting Adverse Cardiovascular Effects of Methamphetamine

Methamphetamine promotes the release of dopamine and norepinephrine, leading to an increase in heart rate and blood pressure. Cardiovascular complications of methamphetamine use include arrhythmia, stroke, and acute coronary syndrome. The factors that predict cardiovascular response to methamphetamine are not known. Under laboratory conditions, investigators administered intravenous methamphetamine to 67 methamphetamine-dependent individuals and monitored heart rate and blood pressure response.

- Compared with baseline, heart rate increased by 18 bpm (p<0.001), and systolic blood pressure increased by 18 mm Hg (p<0.001) following methamphetamine administration. The peak effect was seen 10 minutes after administration.
- Factors associated with cardiovascular response included baseline heart rate and blood pressure (men only); female gender; alcohol use in the past 30 days; pre-study intravenous (compared to smoked) methamphetamine

use; and cannabis use in the past 30 days, which led to decreased peak change in heart rate.

- Factors not associated with cardiovascular response included lifetime and past 30-day use of methamphetamine, lifetime and past 30-day use of nicotine, and race.

Comments: The cardiovascular effects of methamphetamine are substantial and put patients at risk for serious complications. This study helps to elucidate the factors that may be associated with more profound responses. Clinicians should warn patients of the cardiovascular complications of methamphetamine use and consider these factors when evaluating patients with recent methamphetamine ingestion.

David A. Fiellin, MD

Reference: Fleury G, De La Garza R 2nd, Mahoney JJ 3rd, et al. Predictors of cardiovascular response to methamphetamine administration in methamphetamine-dependent individuals. *Am J Addict.* 2008;17(2):103–110.

Alcohol, Postmenopausal Hormones, and Risk of Breast Cancer

Both alcohol and postmenopausal hormone use increase the risk for breast cancer. To determine whether alcohol interacts with hormone use to further increase this risk, researchers followed 5035 postmenopausal women who participated in the Copenhagen City Heart Study. Subjects reported alcohol intake and hormone use at baseline (1981–1983) and were followed in the Danish cancer regis-

try until 2002. Of the participants, <0.1% were lost to follow up, and 267 developed breast cancer. Proportional hazard models were used to analyze associations between alcohol intake and breast cancer. The authors report the following findings:

Alcohol, Hormones, and Breast Cancer (continued from page 6)

- Women who consumed alcohol versus nondrinkers (defined as consuming <1 drink per week in this study) had a small increase in breast cancer risk (hazard ratio [HR], 1.11 per drink/day; 95% CI: 0.99–1.25).
- Women who used hormones had a significantly increased risk of breast cancer (HR, 2.00 per drink/day) compared with women who did not use hormones.
- An interaction was shown between these two factors. Those women who had an intake of more than 2 drinks per day and took hormones had an increase in risk for breast cancer (HR, 4.74) compared with nondrinkers who did not use hormones.
- Alcohol was not associated with breast cancer among women who did not use hormones.

Comments: This study supports previous findings that postmenopausal hormone use modifies the risk of breast cancer associated with alcohol consumption.

Further, alcohol consumption in this study was not associated with an increased risk of breast cancer among women who did not report hormone replacement therapy.

This study did have a major limitation in that hormone and alcohol intake were measured only once during the 2-decade study. Nonetheless, these results and those of other studies suggest that women who drink moderately may reduce, or even avoid, an increase in the risk of breast cancer if they do not take hormones, do not have heavy drinking episodes, and have an adequate intake of dietary folate.

R. Curtis Ellison, MD

Reference: Nielsen NR, Grønbaek M. Interactions between intakes of alcohol and postmenopausal hormones on risk of breast cancer. *Int J Cancer.* 2008;122(5):1109–1113.

Trends and Complications among Hospitalized Pregnant Women with Stimulant Abuse

Maternal and fetal complications associated with stimulant abuse during pregnancy are substantial and reported to be similar for cocaine and amphetamines. Researchers from the Centers for Disease Control and Prevention queried the Healthcare Cost and Utilization Project National Inpatient Sample to determine trends in cocaine and amphetamine-related hospitalizations, and complications during these hospitalizations, among pregnant women between 1998 and 2004. During the study period,

- the annual cocaine-related hospitalization rate decreased from 0.74 per 100 deliveries to 0.41, while the amphetamine-related rate increased from 0.11 to 0.22.
- 82% of the amphetamine-related hospitalizations were found to be in Western states.
- the proportion of women younger than 24 years was higher in the amphetamine group than in the cocaine group.
- amphetamine-related hospitalizations were more common than cocaine-related hospitalizations among rural hospitals.
- psychiatric disorders, poor fetal growth, and premature delivery were more common in the cocaine group compared with the amphetamine group.
- cardiovascular disorders, hypertension complicating pregnancy, and placenta previa were more common in the amphetamine group.
- no significant differences between cocaine and amphetamine groups were detected for anemia, genitourinary infections, hepatitis, seizure disorder, injury, placental abruption, or premature labor.

- the following were all more common in the amphetamine group compared with the non-substance abuse group:

  - psychiatric disorders
  - anemia
  - genitourinary tract infections
  - hepatitis
  - epilepsy
  - cardiovascular disorders
  - injury
  - hypertension complicating pregnancy
  - premature rupture of the membranes
  - placenta previa or placental abruption
  - infection of the amniotic cavity
  - poor fetal growth
  - intrauterine death

Comments: As shown in other studies, most medical conditions are more common in those who use illicit drugs than in those who do not. Cocaine-related hospitalizations remain more prevalent than amphetamine-related hospitalizations, but the gap has narrowed and varies geographically. Although many complications are similar, there is a higher incidence of psychiatric disorders, poor fetal growth, and premature delivery with cocaine abuse and more vascular-related complications with amphetamine abuse.

Alexander Y. Walley, MD, MSc

Reference: Cox S, Posner SF, Kourtis AP, et al. Hospitalizations with amphetamine abuse among pregnant women. *Obstet Gynecol.* 2008;111(2):341–347.

Prescription Drug Misuse Is Prevalent and Associated with Youth, Psychiatric Problems, and Other Substance Use

Nonmedical use of prescription drugs is a growing problem among adolescents and young adults. Three recent articles examine this problem using cross-sectional data from the National Survey on Drug Use and Health (NSDUH), a representative US sample survey assessing the prevalence, patterns, and consequences of alcohol, tobacco, and illegal drug use.

- Analyzing data from 91,804 persons over age 18 who participated in the survey between 2002 and 2004, Becker and colleagues found past-year nonmedical use of prescription opioids in 4.5% of subjects, 12.9% of whom met criteria for abuse or dependence. Correlates of nonmedical use included younger age, depressive and anxiety symptoms, cigarette smoking, alcohol misuse, Latino ethnicity, unemployment, and low education attainment.

- Wu and colleagues examined data from 18,678 adolescents aged 12–17 who participated in the 2005 survey and found that 10% reported lifetime nonmedical use of prescription opioids. Of these, 61% had used prescription opioids nonmedically before age 15, and 18% had used them weekly or more in the previous year. Risk factors for lifetime use included age 16–17 (compared with age 12–13), younger age at first drug use, fair or poor health, and 3 or more emergency department visits in the past year. Mental-health service use was a significant correlate for girls.

- In an analysis of the 2003 survey, Simoni-Wastila and colleagues found a 9.3% prevalence of nonmedical prescription drug use by adolescents. They similarly detected a relationship between past-year nonmedical use of prescription drugs with age 16–17, cigarette smoking, and alcohol use.

Comments: Nonmedical use of prescription drugs, especially opioids, is highly prevalent among adolescents and adults. In an ideal world, all physicians would ask all patients about nonmedical use of prescription drugs as a routine part of the medical and psychiatric history. In reality, this ideal often proves challenging in a busy clinic or office. These studies, although they cannot determine causal direction, do provide clues that can guide clinical prevention and case finding. Clinicians should be especially careful to address the possibility of prescription and other drug problems among persons in middle to late adolescence or early adulthood; in those who smoke, drink, or use other substances; and in those with depressive or anxiety symptoms.

Peter D. Friedmann, MD, MPH

References: Becker WC, Sullivan LE, Tetrault JM, et al. Nonmedical use, abuse and dependence on prescription opioids among U.S. adults: psychiatric, medical and substance use correlates. *Drug Alcohol Depend.* 2008; 94(1–3):38–47.

Wu LT, Pilowsky DJ, Patkar AA. Non-prescribed use of pain relievers among adolescents in the United States. *Drug Alcohol Depend.* 2008;94(1–3):1–11.

Simoni-Wastila L, Yang HWK, Lawler J. Correlates of prescription drug nonmedical use and problem use by adolescents. *J Addict Med.* 2008;2(1):31–39.

Youth Cannabis Use Commonly Extends into Adulthood

Data from Western countries suggest that up to half of adolescents have used cannabis at least once, and up to 10% may develop cannabis abuse or dependence. To examine the natural history of cannabis use, German investigators analyzed 4- and 10-year follow-up data from 3021 youth (ages 14–24 years at baseline) enrolled in a prospective population-based cohort study. Cannabis use and dependence were measured using the Composite International Diagnostic Interview-Substance Abuse Module (CIDI-SAM), Munich version.

- At baseline, 7% had used cannabis once only; 11% had used it 2 to 4 times only, and 16% had used it 5 times or more (repeated use).
- Cannabis abuse or dependence was found in 12% of subjects at baseline, 15% at 4 years, and 13.5% at 10 years.
- Of those who had repeated cannabis use at baseline, 56% still used it 4 years later, and 46% still used it 10 years later.

- Predictors of repeated use at 10-year follow-up included repeated use at baseline, younger age of initial use, male gender, drug-using peers, distressing life events, and alcohol dependence.

Comments: Physicians and other adults commonly view marijuana as harmless and worthy of consideration as medical treatment by prescription. This study suggests that a substantial proportion of young cannabis users develop recurrent cannabis use, abuse, or dependence that persists into adulthood. When viewed in light of the current epidemic of prescription drug abuse among young people, these data should give pause to advocates of expanded access to marijuana by prescription.

Peter D. Friedmann, MD, MPH

Reference: Perkonigg A, Goodwin RD, Fiedler A, et al. The natural course of cannabis use, abuse and dependence during the first decades of life. *Addiction.* 2008;103(3):439–449.

Nicolas Bertholet, MD, MSc, Joins the Editorial Board of *Alcohol, Other Drugs, and Health: Current Evidence*

We are pleased to welcome Nicolas Bertholet, MD, MSc, to the editorial board of *Alcohol, Other Drugs, and Health: Current Evidence.*

Dr. Bertholet received his doctoral degree in medicine from the University of Lausanne Medical School, Switzerland, in 2001. After several years of clinical training in primary care and psychiatry at the Lausanne University Hospital and the Clinical Epidemiology Center, Institute of Social and Preventive Medicine, Lausanne, he obtained a grant to pursue additional training in addiction medicine in the United States. In 2006, he joined the Clinical Addiction Research and Education (CARE) unit at Boston University School of Medicine, where he worked closely with Dr. Richard Saitz, Editor of *AODHCE,* on research related to unhealthy alcohol use and where he earned his Master's degree in epidemiology in 2008.

Dr. Bertholet returned to the Alcohol Treatment Center and Clinical Epide-

miology Center in Lausanne in 2008, where he supervises resident and psychologist training in addiction medicine and continues his research on alcohol use, brief motivational interventions, and the processes of change involved in addiction. In addition to several articles in peer-reviewed journals, Dr. Bertholet is coauthor with Dr. Saitz of "Screening and Brief Intervention for Pregnant Women," in *Principles of Addiction Medicine*, 4th ed. (in press).

The addition of Dr. Bertholet as Associate Editor broadens the scope of *AODHCE* to include the latest evidence-based research in addiction medicine from Europe. His journal coverage includes *Alcoologie et Addictologie, Alcohol and Alcoholism, European Addiction Research, European Journal of Public Health,* and *European Psychiatry.* We look forward to his valuable contribution to the newsletter and to improving research and practice in the field of addiction medicine.

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