Alcohol, Other Drugs, and Health: Current Evidence

NOVEMBER–DECEMBER 2015

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INTERVENTIONS & ASSESSMENTS

Which Brief Intervention Components Work for Young Risky Drinkers in the Emergency Department?

To assess the association of alcohol brief intervention (BI) components with early psychological constructs of behavioral change, researchers analyzed data from an ongoing randomized trial of 783 youths (14–20 years old) drinking risky amounts who presented to the emergency department. Participants were randomized to therapist-delivered BI, computer-delivered BI, or control. The psychological construct outcomes of importance of cutting down, likelihood of cutting down, readiness to stop, and wanting help were measured at baseline and immediately after the BI session was completed. The significant correlations* between BI components and the 4 outcomes are shown in the table:

	Immediate Post-Intervention Psychological Construct			
BI Component**	**Importance of cutting down**	**Likelihood of cutting down**	**Readiness to stop**	**Wanting help**
Therapist BI				
Identify personal strengths	0.13	0.14	0.17	0.14
Tools: Drinking less/Not at all	0.20	0.15	0.21	
Giving information	-0.15	-0.17	-0.21	
Computer BI				
Benefits of change	0.17	0.15	0.15	
Identify personal strengths	0.13			0.16
Better things to do: Sports	0.17	0.20	0.15	
Tools: Drinking less/Not at all	0.19	0.19	0.17	
Choosing a drinking goal	0.52	0.48	0.42	0.33

* Correlations range from -1 to +1.
** Not shown are non-significant correlations of an additional 18 components for therapist BI and 3 components for computer BI.

Comments: This analysis takes the important step of identifying which BI components are correlated with improvements in constructs that might predict behavioral change. Several BI components were positively associated with the constructs, whereas simply giving information, not surprisingly, was negatively associated. Of course, improvement in several psychological constructs measured immediately after a BI does not mean the actual behavior will change; we will need to wait for the results of the parent randomized trial to know that.

Kevin L. Kraemer, MD, MSc

Reference: Walton MA, Chermack ST, Blow FC, et al. Components of brief alcohol interventions for youth in the emergency department. *Subst Abus*. 2015;36:339–349.

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Clonidine Reduces Lapses Among People with Opioid Use Disorder Who Achieved Abstinence with Buprenorphine

In laboratory-based studies, alpha-2 receptor blockers like clonidine block stress and cue-induced craving for opioids and cocaine. To determine whether clonidine can reduce lapse and relapse, researchers conducted a randomized double blind placebo-controlled clinical trial of clonidine up to 0.3 mg once daily for 12 weeks among 118 research volunteers with opioid use disorder who had been abstinent for 5 weeks receiving buprenorphine maintenance with daily dispensing from a research clinic. Urine tests for opioids and cocaine were done 3 times weekly. Lapse was defined as any positive or missed urine test and relapse was defined as ≥ 2 consecutive lapses. Ecological momentary assessments (EMA) were collected via handheld devices to determine whether stress was decoupled from craving as a mechanism by which clonidine may reduce lapse and relapse.

- Time to opioid lapse was reduced for the clonidine group with a hazard ratio of 0.67, compared with the placebo group. This effect was attributable to the subgroups with no or low cocaine use and not the groups with high cocaine use, whose participants were more likely to experience a lapse.
- Time to relapse was reduced in the clonidine group.
- The clonidine group had more days of continuous opioid abstinence than the placebo group (35 versus 26 days) by urine drug testing, but no difference in overall percentage of opioid negative urine tests (89% versus 80%).
- In the EMA analysis, clonidine reduced the likelihood of heroin cravings overall and there was a decoupling of stress from craving in the clonidine group.
- The clonidine group was more likely to have adverse events than the placebo group (95% versus 84%). Dry mouth, sedation, and hypotension were more common in the clonidine group.

Comments: Clonidine is an anti-hypertensive medication that is frequently prescribed off-label for anxiety and opioid withdrawal. It is also commonly diverted to enhance the effects of opioids. This study found some evidence that clonidine can be useful as an adjunct to buprenorphine maintenance to reduce opioid lapses and that it reduces opioid craving, but the contexts in which its benefits outweigh its risks in real world clinical practice remain to be determined.

Alexander Y. Walley, MD, MSc

Reference: Kowalczyk WJ, Phillips KA, Jobes ML, et al. Clonidine maintenance prolongs opioid abstinence and decouples stress from craving in daily life: a randomized controlled trial with ecological momentary assessment. *Am J Psychiatry*. 2015;172(8):760–767.

Randomized Trial Finds Modest and Mixed Effects of Alcohol on Cardiometabolic Markers in Adults with Type 2 Diabetes

To try to overcome the serious biases in observational studies of "moderate" drinking, investigators randomly assigned adults with type 2 diabetes to mineral water, red wine (17g of ethanol), or white wine (16g of ethanol) with dinner for 2 years. At baseline, participants were aged 40–75 years; drank no more than 1 drink in a week; had no past addiction, smoking, stroke, myocardial infarction, or recent surgery; didn't use more than 2 insulin injections; had hemoglobin A1C 6.4%-<10%; and had no first-degree relatives with breast cancer. Two-year follow-up was 87%.

- HDL cholesterol levels increased by 2mg/dL more in the red wine (but not white) group than in the water group.
- The white wine (but not red) group had a decrease in fasting plasma glucose that was 17mg/dL larger than the water group.

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Randomized Trial Finds Modest and Mixed Effects of Alcohol on Cardiometabolic Markers in Adults with Type 2 Diabetes (continued from page 2)

- Decreases in glucose with wine were only significant among the 1 in 3 participants who were slow alcohol metabolizer homozygotes.

Comments: The most troubling feature of this trial report is the stated conclusion of safety. Clearly even a 2-year trial of a carcinogen cannot prove safety. Regarding efficacy, we do not know if raising HDL levels with alcohol confers cardiovascular risk reduction; the effects are small, contrary to those hypothesized regarding red versus white wine; and, for glycemic control, limited to the minority of fast alcohol metabolizers. Whether drinking low amounts improves any real measure of health remains unknown. These results are clearly insufficient to support any recommendation to start drinking for health reasons.

Richard Saitz, MD, MPH

Reference: Gepner Y, Golan R, Harman-Boehm I, et al. Effects of initiating moderate alcohol intake on cardiometabolic risk in adults with type 2 diabetes: a 2-year randomized, controlled trial. *Ann Intern Med*. 2015;163 (8):569–579.

HEALTH OUTCOMES

Retention in Methadone Treatment Reduces the Risk of Death

Patients with opioid use disorder (OUD) have a higher mortality than the general population and treatment has a protective effect. However, an increase in mortality has been noted during treatment transition. In countries where methadone is prescribed in primary care for the treatment of OUD, observed methadone dosing (usually in pharmacies) may also have an impact on mortality. The purpose of this Irish national community-based study was to assess the risk of death during periods of transition off of methadone and the impact of observed methadone dosing on both drug-related deaths and all-cause mortality among 6983 patients aged 19–65 on a national methadone register, 2004–2010.

- Crude drug-related mortality rates were 0.24 per 100 person-years on methadone treatment versus 0.39 off treatment (adjusted mortality rate ratio [aRR], 1.63). Crude all-cause mortality rate per 100 person-years was 0.51 on treatment versus 1.57 off treatment (aRR, 3.64).
- Mortality was highest within the first 4 weeks off treatment:
  - 6 times higher in the first 2 weeks off treatment.
  - 9 times higher weeks 3–4 off treatment.
- All-cause mortality was lower with observed dosing but did not reach statistical significance in the adjusted models.

Comments: Although this study was underpowered to specifically assess drug related deaths, it confirms some important trends noted in other studies. This includes the increased risk of all-cause mortality after methadone cessation (especially within the first 4 weeks after stopping methadone treatment). This study has implications for providers and policymakers regarding the importance of treatment retention.

Jeanette M. Tetrault, MD

Reference: Cousins G, Boland F, Courtney B, et al. Risk of mortality on and off methadone substitution treatment in primary care: a national cohort study. *Addiction*. 2015 [Epub ahead of print]. doi: 10.1111/add.13087.

Payer-Mandated Buprenorphine Dose Decreases Result in Worse Patient Outcomes

Despite a lack of evidence supporting specific limits to FDA-approved buprenorphine doses for the treatment of opioid use disorder, payer mandates in some areas have imposed plan limits on dosing for patients initiating or already receiving buprenorphine. In this natural experiment, the authors performed a retrospective analysis of urine toxicology results among patients receiving higher doses of buprenorphine who were forced to limit their daily dose to 16 mg per day. Urine toxicology results were compared between the 6 months before and 4 months after the policy change. To control for other temporal factors, comparison groups were formed among patients from the same practice with the same insurance receiving buprenorphine doses of ≤16 mg per day, patients with different insurance receiving ≤16 mg per day, and patients with different insurance receiving >16 mg per day.

- Rates of aberrant urine toxicology results rose from 28% to 34% among those patients who were mandated to decrease their dose. No other group experienced this increase in aberrant findings.
- Groups receiving >16 mg per day had lower rates of aberrant toxicology findings and greater treatment retention.

(continued page 4)

Payer-Mandated Buprenorphine Dose Decreases Result in Worse Patient Outcomes (continued from page 3)

Comments: These data suggest that an arbitrary dose decrease imposed by payer mandates results in an increase in aberrant urine toxicology findings. Despite the single site study design with relatively short follow-up after the mandated decrease and lack of investigation into buprenorphine diversion at higher doses, this study suggests that involuntary dose decreases may result in patient destabilization.

Jeanette M. Tetrault, MD

Reference: Accurso AJ, Rastegar DA. The effect of a payer-mandated decrease in buprenorphine dose on aberrant drug tests and treatment retention among patients with opioid dependence. *J Subst Abuse Treat*. 2015 [Epub ahead of print]. doi: 10.1016/j.jsat.2015.09.004.

Pain Symptoms and Return to Drinking During and After Treatment for Alcohol Use Disorder

Research indicates that alcohol use is higher among individuals with chronic pain. In this study, researchers used data from 2 large alcohol use disorder (AUD) treatment trials, COMBINE (N=1383) and UK Alcohol Treatment Trial (UKATT; N=742), to assess whether pain is related to AUD treatment outcomes. For each trial separately, they assessed associations between pain and drinking in time to event analyses adjusted for gender, baseline drinking days, AUD severity, motivation, self-efficacy, temptation, mental health symptoms, and type of AUD treatment. The main results are shown in the table:

Predictor	Time to First Heavy Drinking Day	Time to First Drinking Day
	During AUD Treatment	
Baseline pain score		
COMBINE	1.08 (0.98, 1.18)	1.01 (0.92, 1.11)
UKATT	**1.19** (1.06, 1.34)	1.10 (0.98, 1.23)
	After AUD Treatment	
End-of-treatment pain score		
COMBINE	**1.44** (1.07, 1.92)	**1.54** (1.10, 2.15)
UKATT	0.81 (0.51, 1.28)	0.60 (0.34, 1.06)

Values are hazard ratios (95% confidence interval) that depict change in risk for each unit increase in pain score.

Comments: This secondary analysis shows an inconsistent association of pain symptoms with alcohol use during and after AUD treatment. Nonetheless, it does appear that pain may be associated with relapse at least under some circumstances, so clinicians should address it. In this population, behavioral therapy, non-opioid medication and, as appropriate, physical therapy are optimal approaches, whether initiated by the AUD treatment team or in concert with primary care providers.

Kevin L. Kraemer, MD, MSc

Reference: Witkiewitz K, Vowles KE, McCallion E, et al. Pain as a predictor of heavy drinking and any drinking lapses in the COMBINE study and the UK Alcohol Treatment Trial. *Addiction*. 2015;110:1262–1271.

Prescription Monitoring Program and "Pill Mill" Laws Have Had Modest Effects on Opioid Overprescribing in Florida

In the mid-2000s, Florida had high rates of prescription opioid overdoses and physicians who were dispensing or prescribing large quantities of opioids ("pill mills"). In response to this, the state enacted laws in 2010 to discourage these practices and established a prescription monitoring program (PMP) that became operational in 2011. This study used data from a cohort of 2.6 million individuals who filled 480 million prescriptions in Florida and Georgia (as a comparison), July 2010–September 2012, and investigated changes in opioid prescribing practices.

- During the pre-implementation period, the total volume of opioids (in mean morphine equivalents [MME]), mean MME per transaction, and mean days' supply per transaction were higher in Florida than in Georgia.
- When comparing the pre- and post-implementation periods in Florida, the total opioid volume in MME declined 4%, the mean MME per transaction declined 5.7%, while the mean days' supply per transaction increased 3.8% and there was no change in the number of opioid prescriptions. The greatest differences were among prescribers with the highest baseline opioid prescribing rates. Georgia also had declines in opioid volume and mean MME, but less than those observed in Florida.

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Prescription Monitoring Program and "Pill Mill" Laws Have Had Modest Effects on Opioid Overprescribing in Florida (continued from page 4)

- It was estimated that the change resulted in a reduction in prescribing equivalent to 500,000 5 mg hydrocodone tablets per month in Florida.

Comments: The measures implemented in Florida are reasonable but only modestly effective, probably because they only affect the outliers. Most of the prescription opioids that are fueling the current epidemic are not coming from "pill mills." Individuals who divert prescription opioids generally receive them from a single prescriber and this would not be influenced by the implementation of a PMP, which targets "doctor shopping" (seeking overlapping prescriptions from multiple providers).

Darius A. Rastegar, MD

Reference: Rutkow L, Chang HY, Daubresse M, et al. Effect of Florida's prescription drug monitoring program and pill mill laws on opioid prescribing and use. *JAMA Intern Med*. 2015;175 (10):1642–1649.

Observed Effects of Alcohol Vary by Country Economic Level

The effects of alcohol on health seem to vary at the population level. Investigators studied a prospective sample of 114,970 adults from 12 countries and 5 continents. Median age was 50 years, 42% were men, and follow-up was a median of 4.3 years. People with current (past year) alcohol use (PCU) in low-income countries (LICs) were younger, less educated, and more likely to be male and smoke than those in high-income countries (HICs).

In analyses adjusted for age, body mass index, ethnicity, education, wealth, comorbidities, medications, physical activity, smoking, diet, and community, the authors found:

- No association between current drinking (even if low or "moderate") and mortality, cardiovascular disease (CVD), or stroke, although high intake was associated with increased mortality (hazard ratio [HR], 1.3).*
- A reduction in myocardial infarction (HR, 0.76), an effect seen among those with low or "moderate" intake only, and in HICs and high-middle-income countries (HMICs) only.
- An increase in alcohol-related cancer (HR, 1.51) and injury (HR, 1.29).
- A pre-specified composite outcome (death, CVD, cancer, injury, hospital admission) was less common among PCU (HR, 0.84) and low (HR, 0.87) and "moderate" (HR, 0.79) PCU in HICs and HMICs but not LICs or low-middle-income countries (LMICs); the composite outcome was more common among PCU with heavy episodes in LICs and LMICs but not HICs or HMICs.

* "Low": <7 standard drinks in a week; "moderate": 7–14 drinks in a week (women), 7–21 drinks in a week (men); "high": >14 drinks in a week (women), >21 drinks in a week (men).

Comments: The assumption that the health effects of alcohol are purely pharmacological is likely wrong. In this very large sample, the main message is twofold. First, most effects are of harm (cancer, injury, and death). Second, potentially beneficial effects appear to accrue only to those in high-income countries, which suggests that many of the observed beneficial health effects of alcohol are likely due to the characteristics of those who choose to drink and that the effects of alcohol vary according to other lifestyle factors.

Richard Saitz, MD, MPH

Reference: Smyth A, Teo KK, Rangarajan S, et al. Alcohol consumption and cardiovascular disease, cancer, injury, admission to hospital, and mortality: a prospective cohort study. *Lancet*. 2015 [Epub ahead of print]. doi: 10.1016/S0140-6736(15)00235-4.

Association of Alcohol Consumption and Risk of Developing Type 2 Diabetes

To determine whether alcohol consumption can be associated with a decreased risk of developing type 2 diabetes, researchers conducted a meta-analysis of 38 multi-language cohort, case-cohort, case-control, or nested case-control studies on alcohol and diabetes involving nearly 2 million participants (84% of men and 58% of women reported as Asian).

- Non-Asian populations show primarily an inverse relation of alcohol (an "L-shaped" curve) with the risk of diabetes, but Asian populations show an opposite increase in risk.
- In overall analyses, only females showed a significant inverse association between alcohol consumption and the risk of diabetes.
- Peak risk reduction (18%) was observed among people with average consumption of 10–14 g alcohol in a day, compared with abstainers.

Comments: In general, many of the factors that relate to diabetes (diet, body size and adiposity, type of beverage consumed, etc.) are quite different between Asian and non-Asian populations; combining such groups when their analyses show opposite effects of alcohol on diabetes risk may not be a reasonable way of trying to develop results that apply globally. The authors could not take the pattern of drinking or the type of

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Association of Alcohol Consumption and Risk of Developing Type 2 Diabetes (continued from page 5)

beverage into consideration; both factors have been shown to affect the risk of developing diabetes.

R. Curtis Ellison, MD

Reference: Knott C, Bell S, Britton A. Alcohol consumption and the risk of type 2 diabetes: a systematic review and dose-response meta-analysis of more than 1.9 million individuals from 38 observational studies. *Diabetes Care*. 2015;38:1804–1812.

More Evidence Linking Long-Term Alcohol Consumption with Breast, Upper Aero-Digestive Tract, and Colorectal Cancers

Ethanol is carcinogenic to humans, but the biological mechanisms are not fully understood. This systematic review and meta-analysis examined the association of long-term alcohol intake with upper aero-digestive tract, colorectal, and (for women) breast cancers. To be included, studies had to measure alcohol intake for different periods of life (based on age) or report more than one assessment of consumption over time. The authors identified 16 articles for upper aero-digestive tract, 74 for colorectal, and 16 for breast cancer.

- There was a positive linear dose-response relationship between long-term alcohol intake and upper aero-digestive tract and colorectal cancer incidence.
- There was a positive non-linear dose-response relationship between long-term alcohol intake and breast cancer incidence.
- The pooled risk ratio (highest versus lowest category of long-term alcohol intake as categorized in each of the identified studies) was 2.83 for upper aero-digestive tract, 1.49 for colorectal, and 1.28 for breast cancer.
  - Specifically, the pooled risk ratio was 4.84 for cancer of the oral cavity and pharynx, 2.25 for larynx, and 6.71 for esophagus.

Comments: This study provides further evidence of the association between alcohol intake over time and cancer. The included studies did not take into account the pattern of intake, which would allow for a more detailed measure of alcohol consumption. This would be important in differentiating a cumulative carcinogenic effect from a tumor-promoting effect (in which a high daily alcohol intake for a short period of time would be associated with a higher risk of cancer than a lower daily intake for a longer duration).

Nicolas Bertholet, MD, MSc

Reference: Jayasekara H, MacInnis RJ, Room R, English DR. Long-term alcohol consumption and breast, upper aero-digestive tract and colorectal cancer risk: a systematic review and meta-analysis. *Alcohol Alcohol*. 2015 [Epub ahead of print]. pii: agv110.

Two Prospective Cohort Studies Indicate Association between Alcohol Consumption and Cancer

Researchers evaluated the association of alcohol consumption over many years with the risk of cancer based on data from two very large US cohort studies, the Nurses' Health Study and the Health Professionals Follow-up Study.

- Men reporting an average intake of ≥ 15 g of alcohol in a day had an increased risk of alcohol-related cancers (relative risk [RR], 1.06 (95% CI: 0.98–1.15).
- In non-smoking women, even an average consumption of 5.0–14.9 g of alcohol in a day (the equivalent of ½ – 1 ½ typical drinks) was associated with a slight increase in total cancer risk, primarily from an increase in the risk of breast cancer (RR, 1.04 (CI: 1.00–1.09).

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American Journal of Drug & Alcohol Abuse
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Many others periodically reviewed (see www.aodhealth.org).

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Two Prospective Cohort Studies Indicate Association between Alcohol Consumption and Cancer (continued from page 6)

- For both men and women, there seemed to be a linear dose-response increase in risk of cancer.

Comments: The finding in this study of an increase in some cancers among women even for lighter drinking has implications for alcohol policy. Not included in the analyses were some dietary and other lifestyle factors (e.g., folate levels) that have been shown to relate to the risk of cancer. More importantly, the net effects of light alcohol consumption on mortality were not addressed in the study, which is unfortunate because risks might have been balanced by possible benefits for mortality. Such data could have provided more valuable information upon which to develop appropriate guidelines for alcohol consumption.

R. Curtis Ellison, MD

Reference: Cao Y, Willett WC, Rimm EB, et al. Light to moderate intake of alcohol, drinking patterns, and risk of cancer: results from two prospective US cohort studies. *BMJ*. 2015;351:h4238.

HIV AND HCV

Teaching Proper Injection Practices Reduces the Complications of Injection Drug Use

Injection drug use carries a number of risks, including soft tissue infection and transmission of hepatitis C virus (HCV) and HIV. This study evaluated a French program that provided education on HIV and HCV transmission along with training on proper injection practices that included direct observation of participants injecting the substance they generally used. Participants (N = 144) and controls (N = 127, education only) were interviewed at baseline, 6, and 12 months. The primary endpoint was unsafe HIV/HCV transmission practices in the previous 4 weeks at each interview and the secondary endpoint was injection site complications in the previous 4 weeks.

- At baseline, participants in the intervention group were more likely to report unsafe HIV/HCV transmission practices. At 6 months, this declined in the intervention group (from 44% to 25%), but not significantly in the control group (27% to 23%). While the rate at 12 months in the intervention group was similar to the rate at 6 months (26%), this was not significant when compared with baseline.
- Participants in the intervention group had a significant decline in injection site complications (66% to 39% at 12 months), while controls did not (56% versus 62%).
- On multivariable analysis, the intervention was associated with a significant decline in HIV/HCV transmission practices at 6, but not 12, months. Injection site complications were lower at 12 months.

Comments: Providing education on HIV/HCV transmission is a commonly accepted and uncontroversial intervention. The novel component of this study is teaching proper injection practices, with an observed demonstration. This may not be politically feasible given the widespread belief that interventions like this encourage injection drug use. A less intensive intervention—such as providing education without direct observation—would probably be more politically palatable and may also be effective.

Darius A. Rastegar, MD

Reference: Roux P, Le Gall JM, Debrus M, et al. Innovative community-based educational face-to-face intervention to reduce HIV, hepatitis C virus and other blood-borne infectious risks in difficult-to-reach people who inject drugs: results from the ANRS-AERLI intervention study. *Addiction*. 2015 [Epub ahead of print]. doi: 10.1111/add.13089.

Duration of Cocaine Use Is Associated with a Small Increase in the Odds of Depression Among African Americans with HIV

Both depression and cocaine use are common in individuals with HIV, and are associated with worse HIV outcomes. This study investigated the relationship between cocaine use and depression among 447 African Americans with HIV receiving antiretroviral therapy (ART). This was a sub-study of a larger prospective cohort study on subclinical atherosclerotic disease in African Americans with HIV (2003–2012) that excluded individuals with known atherosclerosis or renal impairment.

- The prevalence of depression was 41% and prevalence of chronic cocaine use* was 74%.
- Cross-sectional analyses revealed that duration of cocaine use was associated with a small increase in the odds of depression—compared with no cocaine use—when adjusted for sex, years of HIV infection, and receipt of protease inhibitor (adjusted odds ratio [aOR], 1.02).
- In univariate analyses, there was no association found between other substance use (alcohol, tobacco, or other substances) and depression.

* Defined as use ≥4 times in a month for ≥6 months.

Comments: This study raises important questions about the relationship between the duration of cocaine use and

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Duration of Cocaine Use Is Associated with a Small Increase in the Odds of Depression Among African Americans with HIV (continued from page 7)

depression, and suggested a small association between the two about which clinicians caring for HIV-infected patients should be aware. Major depression was identified on chart review of psychiatrist notes rather than patient self-report of symptoms, so it is unclear whether patients being treated for (perhaps less severe) depression by their primary care providers would have been included. Cross-sectional studies cannot determine which condition came first or account for variations in the two conditions over time. Finally, the authors did not report on the adjusted odds of the association between chronic cocaine use and depression, but rather the adjusted odds of the association between the duration of cocaine use and depression, which may not be clinically significant.

Jessica S. Merlin, MD, MBA

Reference: Hammond ER, Lai S, Wright CM, Treisman GJ. Cocaine use may be associated with increased depression in persons with HIV. *AIDS Behav*. 2015 [Epub ahead of print]. PMID: 26370100.

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Research Training for Subspecialty Fellows Focusing on Addressing HIV and/or Hepatitis C

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The Fellow Immersion Training (FIT) program is a four-day intensive immersion training that equips incoming and current clinical subspecialty fellows (e.g., Infectious Disease, Gastroenterology) with state-of-the-art skills and content to integrate addiction medicine into research and clinical care.

This year, the FIT Program will be held **April 24-27, 2016** on Cape Cod, Massachusetts.
There is no tuition for Fellows.
Accommodations and travel for fellows are funded.
Sponsored by NIDA.

Program Directors are Alexander Walley MD, MSc and Jeffrey Samet MD, MA, MPH,
Boston University Schools of Medicine and Public Health.

More information and an on-line application can be obtained at: www.bumc.bu.edu/fit or by contacting the Program Manager: Danna Gobel at danna.gobel@bmc.org or by phone: 617-414-6946.

Applications will be accepted until February 5,2016

Continuing Medical Education (CME) Accreditation Statements

This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of Boston University School of Medicine and Boston Medical Center. Boston University School of Medicine is accredited by the ACCME to provide continuing medical education for physicians. Boston University School of Medicine designates this enduring material for a maximum of 1.5 *AMA PRA Category 1 Credit(s)*™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Target Audience
The target audience is generalist clinicians, many of whom have received limited training on detecting and treating substance abuse.

Educational Needs Addressed
Primary-care clinicians often miss the diagnosis of alcohol or drug problems and cannot stay abreast of the current substance-abuse literature in the context of a busy practice. Because of the effects of alcohol and drugs on adherence to care plans and physician-patient relationships, patients with alcohol or drug problems may receive suboptimal treatment for other conditions. Further, physicians sometimes perceive alcohol or drug dependence as less treatable than other medical conditions, and thus delegate responsibilities for screening and intervention to others. At the root of the screening and treatment gap is the inadequate provision of substance-abuse education in medical schools and mental-health fields. The newsletter addresses this not only by research dissemination but by providing free downloadable teaching tools for use by educators.

Educational Objectives
At the conclusion of this program, participants will be able to state the latest research findings on alcohol, illicit drugs, and health; incorporate the latest research findings on alcohol, illicit drugs, and health into their clinical practices, when appropriate; and recognize the importance of addressing alcohol and drug problems in primary care settings. In sum, the purpose of the newsletter is to raise the status of alcohol and drug problems in both academic and clinical culture to promote evidence-based screening and treatment and ultimately improve patient care.

Disclosure Statement
Boston University School of Medicine asks all individuals involved in the development and presentation of Continuing Medical Education/Continuing Education (CME/CE) activities to disclose all relationships with commercial interests. This information is disclosed to activity participants. Boston University School of Medicine has procedures to resolve apparent conflicts of interest. In addition, faculty members are asked to disclose when any unapproved use of pharmaceuticals and devices is being discussed.

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Faculty member is the Director of the Institute on Lifestyle and Health, which receives various donations from individuals and companies in the alcohol beverage industry, given as "unrestricted educational gifts." Funds are not given for specific research projects and donors have no prior information on, or input into, the surveillance being carried out or critiques published by the Institute or the Section. Faculty member does not discuss unlabeled/investigational uses of a commercial product.

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