

TABLE OF CONTENTS

INTERVENTIONS & ASSESSMENTS

Initiation of Buprenorphine in the Emergency Department Increased Opioid Treatment Engagement at 30 Days, 1

Primary Care Clinician Attitudes Have Little Effect on Alcohol Screening Implementation, 1

The Substance Use Brief Screen: A Comprehensive Tool for Unhealthy Tobacco, Alcohol, and Other Drug Use in Primary Care, 2

Chronic Care Management Still Misses the Opportunity to Increase Provision of Addiction Pharmacotherapies in Primary Care, 3

The Costs of Implementing Screening and Brief Intervention for Illicit Drug Use, 3

Updated Guidelines for Buprenorphine Treatment for Opioid Use Disorder, 4

Extended-Release Naltrexone May Reduce Opioid Use at Jail Release, 4

Recent Incarceration May be a Barrier to Methadone Treatment Among Individuals with Injection Drug Use, 4

Brief Motivational Interventions Targeting Alcohol Use for Young Emergency Department Patients: State of the Evidence, 5

HEALTH OUTCOMES

Among Patients with Cirrhosis, Heavy Alcohol Use Is Associated with Decompensated Liver Disease, 5

Association of Alcohol Consumption and the Risk of Cancer, 6

The Effects of Alcohol Consumption on the Risk of Hip Fracture, 7

HIV & HCV

Methadone Maintenance Treatment Reduces Incidence of Hepatitis C Virus among People with Injection Drug Use, 7

Brief Intervention for Substance Use Is Not Associated with Reductions in Aggression or Sexual HIV Risk Behaviors, 7

Alcohol, Other Drugs, and Health: Current Evidence

MAY–JUNE 2015

INTERVENTIONS & ASSESSMENTS

Initiation of Buprenorphine in the Emergency Department Increased Opioid Treatment Engagement at 30 Days

Patients with opioid use disorder frequently seek care in the emergency department (ED), which presents an opportunity to link them to addiction treatment. Researchers randomized 329 ED patients with *DSM IV* opioid dependence to 1 of 3 groups: referral to treatment; brief intervention and a facilitated referral (BIRT); and BIRT with buprenorphine initiation and clinical follow-up. The main outcome was enrollment in addiction treatment 30 days after the ED visit. Secondary outcomes included illicit opioid use, by self-report and urine toxicology testing, and inpatient addiction treatment service use.

- 66% were identified by screening and 34% were seeking treatment for opioid use disorder.
- 75% were using heroin primarily, 25% were using prescription opioids primarily, and 52% were injecting drugs.
- 78% of the patients in the buprenorphine group were engaged in addiction treatment at 30 days, as compared with 45% in the BIRT group, and 37% in the referral-only group.
- Those in the buprenorphine group also had lower utilization of inpatient addiction treatment (11% versus 35% in

BIRT and 37% in referral only).

- The buprenorphine group reported a greater decrease in illicit opioid use than the other groups; however there was no significant difference in urine toxicology results across groups.

Comments: This study demonstrates that initiating opioid agonist therapy in the ED results in better engagement in addiction treatment among patients who are either treatment-seeking or identified by screening. Beginning buprenorphine in the ED increased engagement in addiction treatment generally, but decreased use of inpatient treatment, compared with those receiving referral alone or brief intervention with referral. No impact of brief intervention was detected over referral alone.

Zoe M. Weinstein, MD† and Alexander Y. Walley, MD, MSc

† Addiction Medicine Fellow, Boston University Addiction Medicine Program

Reference: D'Onofrio G, O'Connor PG, Pantalon MV, et al. Emergency department-initiated buprenorphine/naloxone treatment for opioid dependence: a randomized clinical trial. *JAMA*. 2015;313(16):1636–1644.

Primary Care Clinician Attitudes Have Little Effect on Alcohol Screening Implementation

Despite evidence-based recommendations for alcohol screening and advice for hazardous drinking in primary care, few patients receive these services. Clinician role security and therapeutic commitment have been hypothesized to affect implementation. Researchers surveyed 746 clinicians across a range of backgrounds, in 120 European primary care practices that had

agreed to participate in a trial of alcohol screening and advice implementation. They asked the clinicians about their role security (e.g., can appropriately advise patients; believe they have the right to ask) and therapeutic commitment (e.g., find it rewarding; self-esteem about success) to working with patients with alcohol use disorders. They

(continued page 2)

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See page 6

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Primary Care Clinician Attitudes Have Little Effect on Alcohol Screening Implementation (continued from page 1)

asked clinicians to document screening and advice.

- Of 179,954 patients seen in a 4-week period, 5% were screened; 74% of those who screened positive were reportedly given brief advice.
- Role security (score range 4–28) was associated with screening at higher than the median rate among psychologists, social workers, and nurse aides (adjusted* odds ratio 1.39), but not among physicians and nurses; it was not associated with advice.
- Therapeutic commitment was not associated with screening or advice.

*Adjusted for jurisdiction, practice, number of patients.

Comments: Clinician attitudes did not appear to affect screening and advice rates much in this study, and the high

proportion screening positive suggests they only screened people at high risk. The study, however, asked about alcohol use disorders (not hazardous use where there is evidence to support advice), did not report survey response rate (making it impossible to judge selection bias), and included clinicians who had very positive attitudes and were in practices that agreed to an implementation study, participants who are therefore unlikely to be representative of practicing clinicians. Nonetheless, it is likely that practical barriers (time, skill, incentives, practice support) are more important than attitudes for implementing alcohol screening and advice and will need to be addressed.

Richard Saitz, MD, MPH

Reference: Bendtsen P, Anderson P, Wojnar M, et al. Professional's attitudes do not influence screening and brief interventions rates for hazardous and harmful drinkers: results from ODHIN study. *Alcohol Alcohol*. 2015 [Epub ahead of print]. doi: 10.1093/alcalc/aggv020.

The Substance Use Brief Screen: A Comprehensive Tool for Unhealthy Tobacco, Alcohol, and Other Drug Use in Primary Care

Despite nationwide efforts to increase screening, brief intervention, and referral to treatment (SBIRT) delivery in primary care settings, reliable and feasible screening tools for alcohol and other drug use are lacking. This report described the results of a single site test-retest reliability study and a 2-site validation study of the 4-item Substance Use Brief Screen (SUBS), which evaluates unhealthy use and use disorders for alcohol, tobacco, and illicit drugs (including harmful use of prescription medications). The single site test-retest reliability study administered the SUBS to 54 participants twice in a 2-week period using tablet computers. The 2-site validation study compared the results of SUBS to reference standards (including self-report and saliva testing) among 586 participants:

	Sensitivity	Specificity
Unhealthy use of:		
Tobacco	97.8%	95.7%
Alcohol	85.2%	77.0%
Illicit or Rx drugs	82.5%	91.1%
Substance use disorder:		
Tobacco	100.0%	72.1%
Alcohol	93.5%	64.6%
Illicit or Rx drugs	85.7%	82.0%

- Analyses of area under the receiver operating curve indicated good discrimination (0.74–0.97) for all substance classes.

Comments: The SUBS had good test-retest reliability, sensitivity, and specificity for detection of past-year unhealthy use of tobacco, alcohol, and other drugs in a large safety-net primary care population with a high prevalence of alcohol and

(continued page 3)

The Substance Use Brief Screen: A Comprehensive Tool for Unhealthy Tobacco, Alcohol, and Other Drug Use in Primary Care (continued from page 2)

illicit substance use, though harmful prescription drug use was relatively low. It was feasible for self-administration and generated valid results. This study addresses an important need for a brief screen with good performance characteristics.

Jeanette M. Tetrault, MD

Reference: McNeely J, Strauss SM, Saitz R, et al. A brief patient self-administered substance use screening tool for primary care: two-site validation study of the Substance Use Brief Screen (SUBS). *Am J Med.* 2015 [Epub ahead of print]. doi: 10.1016/j.amjmed.2015.02.007.

Chronic Care Management Still Misses the Opportunity to Increase Provision of Addiction Pharmacotherapies in Primary Care

Pharmacotherapies are effective for the treatment of substance use disorders but are infrequently prescribed in primary care. Chronic care management (CCM), coordinated patient-centered care delivered by a multidisciplinary team, offers a unique opportunity to increase the prescription of these medications. The Addiction Health Evaluation And Disease management (AHEAD) trial was a randomized clinical trial that tested the effectiveness of CCM for substance use disorders in a primary care setting. The study found that participants receiving CCM had an increased use of addiction medications compared with those receiving usual primary care. This secondary data analysis examined factors associated with prescription of addiction medications in the 282 patients who were randomized to CCM.

- Among participants with alcohol use disorder, 17% were prescribed medications, compared with 9% of those with drug use disorder. Among patients with an opioid use disorder, only 15% received opioid agonist treatment.
- Psychiatric medications were prescribed to 64% of the patients.

- Absence of co-morbid drug dependence was associated with prescription of alcohol dependence medications. Lower alcohol addiction severity and recent opioid use were associated with prescription of drug dependence medications.

Comments: Despite an intervention specifically designed to increase prescription of addiction medication in practice, only a minority of eligible patients received medications in this trial. Not all patients, however, had a drug use disorder for which there are effective medications. Future research should focus on addressing clinician and system barriers as well as implementation efforts to improve provision of these evidence-based treatment options for patients with addiction.

Jeanette M. Tetrault, MD

Reference: Park TW, Samet JH, Cheng DM, et al. The prescription of addiction medications after implementation of chronic care management for substance dependence in primary care. *J Subst Abuse Treat.* 2015;52:17–23.

The Costs of Implementing Screening and Brief Intervention for Illicit Drug Use

The costs of implementing illicit drug use screening and brief intervention (SBI) in primary care are not known. Researchers used data from a randomized controlled trial and an existing local clinical program of illicit drug SBI to estimate per-patient direct delivery (e.g., labor) and service support (e.g., start-up, clinical supervision, booster training, information technology) costs for: screening, brief negotiated interview (BNI; 10–15 minute session), and motivational interview (MI; 30–45 minute session with option of a second session).

- Estimated average per-patient time and costs for direct delivery: screening, 2.2 minutes, \$2.30; BNI, 14.4 minutes, \$6.16; MI, 45 minutes, \$29.61.
- Labor accounted for 55% of screening, 77% of BNI, and 87% of MI direct delivery costs.
- Estimated average per-patient costs for service support: screening, \$13.31; BNI, \$32.77; MI, \$222.65.
- Estimated average per-patient total (direct delivery plus service support) costs: Screening, \$15.61; BNI, \$38.94; MI, \$252.26.

Comments: This intelligent analysis indicates that costs for implementing SBI for illicit drug use in primary care are similar to those previously reported for alcohol SBI. The majority of costs were for clinical support services and not direct delivery of the services. Whether the clinical support services costs would decrease over time at a clinical site is not known. However, the larger and more important question is whether the clinical benefit of SBI for illicit drug use is worth the estimated cost. This analysis cannot answer that question because the clinical trial that served as its basis did not show a benefit of SBI for illicit drug use.

Kevin L. Kraemer, MD, MSc

Reference: Zarkin G, Bray J, Hinde J, Saitz R. Costs of screening and brief intervention for illicit drug use in primary care settings. *J Stud Alcohol Drugs.* 2015;76(2):222–228.

Updated Guidelines for Buprenorphine Treatment for Opioid Use Disorder

Buprenorphine is an effective agonist treatment for opioid use disorder, but guidelines for its administration have not been updated in over a decade, despite new research and practice experience. Researchers convened a 10-member panel of experts in addiction medicine and primary care to review existing buprenorphine treatment guidelines. Using a modified RAND/UCLA Appropriateness Method, the panel rated specific guideline statements on a scale ranging from 1 (definitely not valid) to 9 (definitely valid) over 2 rounds of rating, with an inter-round 4-hour discussion session via webinar.

- Of 90 existing guideline statements across 8 domains (candidate assessment, selection, treatment contract, dosing, monitoring, discontinuation, psychosocial counseling, and treatment of co-occurring mood disorders), panelists rated 65 (72%) as valid (scores 7–9 and without disagreement among panelists).
- Nineteen guideline statements were reworded and

6 new guideline statements written during the discussion session.

- Domains with high consensus among panelists were: type of assessments before initiation, use of treatment contracts, and treatment of co-occurring mood disorders.
- Domains with lower consensus were dosing (e.g., setting a maximum dose), monitoring, and duration of treatment.

Comments: The panel provided the valuable service of updating and distilling buprenorphine treatment guidelines to reflect current practice and prescribers should find them very useful. However, it is not clear if the updated guidelines will actually increase credentialed physicians' comfort in prescribing buprenorphine, particularly if existing discomfort centers around the domains (dosing, monitoring, duration) where consensus was low among the expert panel.

Kevin L. Kraemer, MD, MSc

Reference: Farmer CM, Lindsay D, Williams J, et al. Practice guidance for buprenorphine for the treatment of opioid use disorders: results of an expert panel process. *Subst Abuse*. 2015;6:1–8.

Extended-Release Naltrexone May Reduce Opioid Use at Jail Release

Relapse to drug use is common when people with opioid use disorder are released from jail. This open-label effectiveness trial randomized 34 such inmates not seeking agonist treatment to extended-release naltrexone (XR-NTX) within a week prior to release, versus no medication. The medication arm received a second injection 4 weeks after release, and all participants received brief motivational enhancement counseling and referrals to community treatment. Of the 17 randomized to XR-NTX, 15 received the pre-release injection and 12 (75%) received the second injection.

- By week 4, the rate of opioid relapse, defined as ≥ 10 days of self-reported opioid use and urine toxicology, was lower in the XR-NTX group (38%) than the counseling and referral group (88%). Also, fewer XR-NTX urine samples were positive for opioids (41% versus 71%).
- By week 8, the rate of opioid relapse remained lower in the XR-NTX group (50%) than the counseling and referral group (93%), and fewer XR-NTX urine

samples were positive for opioids (41% versus 76%).

- There were no differences in rates of intravenous drug use, cocaine use, re-incarceration, or overdose.

Comments: Though promising, it is uncertain whether these findings extrapolate to inmates with opioid use disorder who are not research volunteers and to those who prefer agonist therapy. Furthermore, while reduction in opioid use is an important health outcome, it remains unclear whether pre-release XR-NTX will reduce crime, recidivism, re-arrest, re-incarceration, and overall costs – outcomes that matter most to correctional agencies and policymakers. Pre-release XR-NTX might prove to be a useful tool to facilitate the community reentry of some inmates, but proponents should be cautious about overselling these preliminary data and the premature adoption of this strategy.

Peter D. Friedmann, MD

Reference: Lee JD, McDonald R, Grossman E, et al. Opioid treatment at release from jail using extended-release naltrexone: a pilot proof-of-concept randomized effectiveness trial. *Addiction*. 2015;110(6):1008–1014.

Recent Incarceration May be a Barrier to Methadone Treatment Among Individuals with Injection Drug Use

Individuals with opioid use disorder, particularly those who inject heroin, are at high risk for incarceration. Methadone maintenance is an effective treatment for opioid use disorder and has been shown to reduce criminal activity, but incarceration may present a barrier to initiating or continuing treatment. Researchers used data from the Vancouver Injection Drug Users Study, a pro-

spective cohort study that began in 1996, to examine the relationship between incarceration and engagement in methadone maintenance treatment.

- Of the 2758 individuals recruited during the study who were followed for a median of 64 months, 381 (14%) reported being incarcerated in the past 6 months at 1 of the semiannual interviews.

(continued page 5)

Recent Incarceration May be a Barrier to Methadone Treatment Among Individuals with Injection Drug Use (continued from page 4)

- Those who reported recent incarceration were more likely to inject heroin daily and to inject or smoke cocaine daily; they were also more likely to have unstable housing.
- On multivariate analysis of factors associated with participation in a methadone treatment program, incarceration in the last 6 months had an adjusted odds ratio (OR) of 0.87. Other factors included age (OR, 2.04 per 10 years older), female gender (OR, 3.11), Caucasian ethnicity (OR, 2.11), and daily injection heroin use (OR, 0.36).

Comments: It makes sense that incarceration may be a barrier to engagement in longitudinal treatment, but the association was modest and does not establish a cause-and-effect relationship. The association may be due (at least partly) to methadone maintenance treatment reducing the risk of incarceration. We need to do more to engage people with opioid use disorder in treatment; incarceration should be viewed as an opportunity to do so.

Darius A. Rastegar, MD

Reference: Koehn JD, Bach P, Hayashi K, et al. Impact of incarceration on rates of methadone use in a community cohort of injection drug users. *Addict Behav.* 2015;46:1–4.

Brief Motivational Interventions Targeting Alcohol Use for Young Emergency Department Patients: State of the Evidence

This systematic review and meta-analysis investigated the state of evidence for brief motivational interventions (BMI) for young emergency department patients with past or present risky alcohol use (according to self-report, blood, breath, and/or high-risk behavior with alcohol use). Studies were included if they used a randomized controlled trial design, evaluated BMI that targeted alcohol use in an emergency care setting, and included at least some people aged 18 or younger. Studies were excluded if they included participants older than 25, did not report drinking outcomes, or were not published in English or German peer-reviewed sources.

- Authors identified 8 articles reporting on 6 different trials, for a total of 1433 participants aged 13–25, with a follow-up range of 3–12 months. Intervention duration was between 5 and 45 minutes (median length = 37 minutes). Control conditions were: written information, contact list, phone follow-up, or personal feedback.
- Two trials found evidence that BMI was efficacious in reducing alcohol use. Four trials showed effects of BMI

on alcohol-related problems or consequences. BMI was never less efficacious than the control condition.

- In the meta-analysis, with a best case scenario approach (i.e., identifying in each study the follow-up point with the largest mean difference between BMI and control), drinking frequency was significantly lower in BMI groups (standardized mean difference, -0.17). There was no advantage over control conditions on quantity of drinking. In a conservative scenario, no differences were observed between BMI and control.

Comments: This systematic review indicates possible benefits of BMI in emergency care to reduce alcohol use among young people. Further research is needed to better understand what makes some interventions effective at all, and more effective than others, and to identify the potential benefits of BMI over less complex interventions.

Nicolas Bertholet, MD, MSc

Reference: Kohler S, Hofmann A. Can motivational interviewing in emergency care reduce alcohol consumption in young people? A systematic review and meta-analysis. *Alcohol Alcohol.* 2015;50(2):107–117.

HEALTH OUTCOMES

Among Patients with Cirrhosis, Heavy Alcohol Use Is Associated with Decompensated Liver Disease

Alcohol use and hepatitis C virus (HCV) are the two main causes of liver cirrhosis in the US and there is a synergistic relationship between them. However, the relative contribution of each is less clear. In this retrospective study, 122 inpatients who had compensated liver disease were compared with 225 who were decompensated (i.e., had ascites, hepatic encephalopathy, bleeding esophageal varices, or hepatorenal syndrome). The authors investigated the relative impact of viral hepatitis and alcohol use, which was categorized as “heavy” (average of ≥ 6 units* of alcohol in a

day), “moderate” (1–6 units in a day), or abstinence.

- Those with decompensated liver disease were more likely to have heavy alcohol use prior to medical hospital admission (44% versus 19%); this was true for those who had HCV and those who did not.
- In multivariable analysis, heavy alcohol use was associated with decompensated liver disease (odds ratio [OR], 1.75),

(continued page 6)

Among Patients with Cirrhosis, Heavy Alcohol Use Is Associated with Decompensated Liver Disease (continued from page 5)

while the association with “moderate” alcohol use was not significant (OR, 1.50, CI: 0.43–5.25). HCV was not associated with decompensated liver disease (OR, 1.01).

* Units based on the following conversions: Beer: bottle = 1.5 units, can = 2 units, pint = 3 units; Liquor: shot = 1 unit, bottle = 30 units; Wine: glass = 2 units, bottle = 9 units.

Comments: Given the retrospective design and reliance on medical records, one should interpret these results with caution. Moreover, the methods for quantifying alcohol intake were imprecise. However, the main point is that heavy alcohol use is harmful to patients with cirrhosis, regardless of whether they also have HCV or not. The authors conclude that “moderate” alcohol use is not associated with decompensated liver disease, but the point estimate is consistent with an increase in risk.

Darius A. Rastegar, MD

Reference: Mankal PK, Abed J, Aristy JD, et al. Relative effects of heavy alcohol use and hepatitis C in decompensated chronic liver disease in a hospital inpatient program. *Am J Drug Alcohol Abuse*. 2015;41(2):177–182.

Association of Alcohol Consumption and the Risk of Cancer

With questionnaire data from 124,193 Kaiser Permanente patients (comprising 17.8 years of follow-up and 18,637 cases of cancer), investigators related reported baseline alcohol intake to the risk of 15 types of cancer. They used persistent abstainers as the referent group, with average alcohol consumption categories of < 1 drink in a day defined as “light,” 1–2 drinks in a day as “moderate,” and ≥ 3 or drinks in day as “heavy.” Under-reporting of alcohol consumption was assessed as “likely” if data from the study indicated use might be higher (e.g., heavy intake on other occasions, evidence of unhealthy alcohol use, alcohol-related liver disease). It was assessed as “unlikely” if no such information was present in the overall study data.

- People with heavy consumption had significant increases in risk of cancers at many sites, especially upper aero-digestive tract (hazard ratio [HR], 2.5), melanoma (HR, 2.2), colo-rectal (HR, 1.4), lung (HR, 1.3), breast (HR, 1.3), and prostate (HR, 1.1).
- Even people with “light” consumption had slightly increased risk of cancers of the breast (HR, 1.1) and colo-rectum (HR, 1.1), and especially melanoma (HR, 1.6), with the last possibly confounded by sun exposure.
- Among participants reporting “moderate” intake, those considered to be “likely under-reporters” had higher overall risk of all cancer (HR, 1.4) than those considered unlikely to be under-reporting their intake (HR 1.1). No significant differences were found according to type of alcoholic beverage.

Comments: This well-done large prospective cohort study confirms increased risk for a number of types of cancer from alcohol consumption, with slight increases for melanoma and breast and colo-rectal cancer, even among people with “light” consumption. It points out the importance of under-reporting of alcohol consumption among people with “moderate” use on the risk of cancer. When considering alcohol use, an increase in risk of some cancers even for people with “light” to “moderate” use should enter into the risk-benefit equation, especially for young persons. After the age of 50, the reduced risk of cardiovascular disease and in total mortality in observational studies associated with “light” to “moderate” drinking may outweigh the possible cancer risks.

R. Curtis Ellison, MD

Reference: Klatsky AL, Li Y, Nicole Tran H, et al. Alcohol intake, beverage choice, and cancer: a cohort study in a large Kaiser Permanente population. *Perm J*. 2015; 19(2):28–34.

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AIDS
Alcohol
Alcohol & Alcoholism
Alcoholism: Clinical & Experimental Research
American Journal of Drug & Alcohol Abuse
American Journal of Epidemiology
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American Journal of Preventive Medicine
American Journal of Psychiatry
American Journal of Public Health
American Journal on Addictions
Annals of Internal Medicine
Archives of General Psychiatry
Archives of Internal Medicine
British Medical Journal
Drug & Alcohol Dependence
Epidemiology
European Addiction Research
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Journal of Substance Abuse Treatment
Journal of the American Medical Association
Journal of Viral Hepatitis
Lancet
New England Journal of Medicine
Preventive Medicine
Psychiatric Services
Substance Abuse
Substance Use & Misuse

Many others periodically reviewed (see www.aodhealth.org).

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The Effects of Alcohol Consumption on the Risk of Hip Fracture

Among elderly people, falls leading to hip fracture are a major health problem associated with severe morbidity and increased mortality. The role that alcohol consumption may play in hip fracture has been a topic of concern for many decades. This meta-analysis is based on prospective studies with more than 26,000 incidences of hip fracture.

- The analysis shows a “J-shaped” association between alcohol consumption,* especially of wine, and the risk of hip fracture, with a slightly decreased risk for “light” drinking and an increased risk for “heavy” drinking.
- Hazard ratios were 0.88 for “light” alcohol consumption, 1.00 for “moderate”, and 1.71 for “heavy” consumption.
- Some of the estimated “protection” from light drinking is apparently from the effects of alcohol on increasing bone mineral density.

* Consumption defined as: “light”: 0.01–12.5 g a day on average; “moderate”: 12.6–49.9 g a day on average; “heavy”: ≥ 50 g a day on average.

Comments: The definition of “moderate” drinking was broad in this study: up to <50 g in a day (or 4–5 standard drinks). Noting the major differences in risk between “light” and “heavy” consumption, these results may be confounded by other lifestyle factors. Nevertheless, this large meta-analysis supports a protective effect of “light” alcohol consumption on the risk of hip fracture, with an increase in bone density from alcohol being a probable important factor. The data suggest that wine consumption may have the most favorable effect, perhaps indicating that polyphenols and other compounds also play a role. It is unclear whether the increase in risk associated with heavy consumption relates to a decrease in bone mineral density, falls, or other causes.

R. Curtis Ellison, MD

Reference: Zhang X, Yu Z, Yu M, Qu X. Alcohol consumption and hip fracture risk. *Osteoporos Int.* 2015;26(2):531–542.

HIV AND HCV

Methadone Maintenance Treatment Reduces Incidence of Hepatitis C Virus among People with Injection Drug Use

Methadone Maintenance Treatment (MMT) reduces behaviors associated with risk of blood-borne infections, but evidence for its impact on hepatitis C virus (HCV) incidence has been mixed. This analysis pooled data from 3 prospective cohort studies of people with injection drug use to examine seroincidence of HCV during semi-annual visits in relation to time-varying MMT enrollment status during the prior 6 months. Of the 3741 participants, baseline HCV prevalence was 63%. Of 1379 individuals who were HCV seronegative at baseline, 1004 (73%) had at least 1 follow-up HCV serology and were eligible for the current analysis. Median follow-up was 2.1 years, and 184 HCV seroconversions occurred for an incidence density of 6.3 per 100 person-years.

- Among the 55 (5.5%) participants receiving MMT at baseline, 14 seroconverted for an incidence density 0.48 per 100 person-years, compared with 5.8 per 100 person-years for those not receiving MMT.
- Among the 166 participants with MMT exposure at any follow-up visit, incidence density was 0.52 per 100 person-years, compared with 5.5 per 100 person-years among those with no MMT exposure. Those who reported MMT at 2 or more follow-up visits had an even

lower incidence density (0.34 per 100 person-years).

- Multivariable models controlling for unstable housing, injection of various drugs, cohort of recruitment, and follow-up time confirmed that MMT had a protective effect against HCV seroconversion (adjusted odds ratio [aOR], 0.47). A similar protective effect was seen in participants aged ≤ 30 (aOR, 0.55).
- A dose-response effect of MMT exposure was found, with an aOR of seroincidence of 0.87 for each additional 6-month period of exposure.

Comments: This study shows that, in addition to reducing opioid use, overdose, and HIV seroconversion the initiation and continuation of MMT reduces HCV seroconversion among patients with opioid use disorder. Although some clinicians are reluctant to recommend MMT to younger patients, the subgroup analysis of patients aged ≤ 30 suggests that we should be more aggressive in offering effective agonist therapy to younger patients who have not yet contracted HCV.

Peter D. Friedmann, MD

Reference: Nolan S, Dias Lima V, Fairbairn N, et al. The impact of methadone maintenance therapy on hepatitis C incidence among illicit drug users. *Addiction.* 2014;109:2053–2059.

Brief Intervention for Substance Use is Not Associated with Reductions in Aggression or Sexual HIV Risk Behaviors

Aggression and risk-taking behaviors often arise from intoxication. The authors hypothesized that a brief intervention (BI) targeting substance use in young South Africans would also be associated with reductions in aggression (physical and verbal) and sexual HIV risk behaviors (e.g., transactional sex, multiple partners). The trial enrolled 403 participants

with substance use recruited from a community health center for primary care in Capetown, South Africa, who were randomized to receive nurse practitioner-delivered BI plus a list of resources, or the list plus usual care.

(continued page 8)

Brief Intervention for Substance Use is Not Associated with Reductions in Aggression or Sexual HIV Risk Behaviors (continued from page 7)

- At baseline, 52% of participants reported risky alcohol use,* while 20% reported illicit use of cannabis, 0.3% cocaine, 9% methamphetamine, and 1.4% sedatives. Most participants denied engaging in aggressive activities (61%), and had 1 or 2 sexual HIV risk behaviors (70%).
- The BI was associated with decreases in alcohol consumption but not other substances.
- The BI group did not experience a reduction in aggression or sexual HIV risk behaviors compared with the control group.
- Participants who reduced their substance use were less likely to report engaging in aggressive activities at follow-up. This was true for both the intervention and control groups, in the full sample and the subsets that reported risky substance use and risky alcohol use. This effect was not seen for HIV sexual risk behaviors.

* Defined as medium or high risk use on the Alcohol, Smoking and Substance Involvement Screening Test.

Comments: Since the majority of individuals did not report engaging aggressive activities at baseline, future studies might benefit from a more sensitive instrument to detect lower levels of aggression, or focus on individuals engaged in more frequent aggressive activities. Lack of impact of substance use reduction on sexual HIV risk behaviors may also be related to low levels of risk-taking at baseline. Furthermore, HIV sexual risk-taking behaviors are often multifactorial, and may not be as directly related to intoxication as aggression.

Jessica S. Merlin, MD, MBA

Reference: Ward CL, Mertens JR, Bresick GF, et al. Screening and brief intervention for substance misuse: does it reduce aggression and HIV-related risk behaviours? *Alcohol Alcohol*. 2015 ;50(3):302–309.



ADDICTION SCIENCE &
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Continuing Medical Education (CME) Accreditation Statements

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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

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