The Clinical Content of Preconception Care: Alcohol, Tobacco, and Illicit Drug Exposures

by

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BACKGROUND

- Substance abuse poses significant health risks to childbearing-aged women in the United States and, for those who become pregnant, to their children.
- Alcohol is the most prevalent substance consumed by childbearing-aged women , followed by tobacco, and a variety of illicit drugs.
- Evidence-based methods for screening and intervening on harmful consumption patterns of these substances have been developed and are recommended to use in primary care settings for women who are pregnant, planning a pregnancy, or at risk for becoming pregnant.
- This report describes the scope of substance abuse in women of childbearing age and provides recommendations from the Clinical Working Group of the Select Panel on Preconception Care, Centers for Disease Control and Prevention, for addressing alcohol, tobacco, and illicit drug use in this population.

Alcohol: Burden of Risk and Disease

- Prenatal alcohol use is a leading preventable cause of birth defects and developmental disabilities
- 11.8% of pregnant women report current alcohol use and 2.9% report binge drinking (> 5 drinks on the same occasion) (*2006 National Survey on Drug Use and Health)*
- 53% of for non-pregnant childbearing age women (15-44 years) in the survey reported current alcohol use and 23.6% were binge drinking – many will become pregnant and drink alcohol at risky levels prior to pregnancy recognition
- Prenatal alcohol exposure is associated with spontaneous abortion, prenatal and postnatal growth restriction, birth defects, and neurodevelopmental deficits including mental retardation, and Fetal Alcohol Spectrum Disorders (FASD).
- Estimates of the prevalence of Fetal Alcohol Syndrome range from up to 1.5 to 2 cases per 1000 live births
- The lifetime cost burden for FAS is estimated to be $2 million per case.

Alcohol: Detection and Intervention

- Evidenced-based guidelines have been developed for identifying and intervening with childbearing-aged women who are engaging in in excessive drinking (>7 drinks/week and/or > 3 drinks on 1 occasion)
- Validated screening instruments for use in childbearing women include the TWEAK, T -ACE, AUDIT, and AUDIT-C
- The U.S. Preventive Services Task Force recommends screening and brief interventions for adults with alcohol problems in primary settings including pregnant and non-pregnant childbearing-aged women
- The National Institute on Alcohol Abuse and Alcoholism (NIAAA) produced a guidance document for clinician's (*Helping Patients Who Drink Too Much: A Clinician's Guide)* that uses quantity, frequency, and maximum amounts of alcohol consumed as a guide for advising and treating individuals who exceed recommended alcohol consumption limits (www.niaaa.nih.gov).

Alcohol: Recommendation

- All childbearing aged women should be screened for alcohol use and brief interventions should be provided in primary care settings including advice regarding the potential for adverse health outcomes.
- Brief interventions should include accurate information about the consequences of alcohol consumption including the effects of drinking during pregnancy, that effects begin early during the first trimester, and that no safe level of consumption has been established.
- Those women who show signs of alcohol dependence should be educated as to the risks of alcohol consumption, and for women interested in modifying their alcohol use patterns, efforts should be made to identify programs that would assist them to achieve cessation and long-term abstinence.
- Contraception consultation and services should be offered and pregnancy delayed until it can be an alcohol-free pregnancy.

Tobacco: Burden of Risk and Disease

- Women who smoke are at increased risk for a wide range of cancers (i.e. lung, cervical, pancreatic, bladder and kidney) , cardiovascular disease, and pulmonary disease
- The 2006 NSDUH found tobacco use was reported by 16.5% of pregnant women and 29.5% of non-pregnant childbearing aged women
- Maternal complications of smoking include premature rupture of membranes, placenta previa, placental abruption, and possibly ectopic pregnancy and spontaneous abortion
- Fetal effects of exposure to maternal smoking include intrauterine growth retardation, prematurity, low birth weight, and SIDS
- Estimates indicate that eliminating smoking during pregnancy would reduce infant deaths by 5% and reduce the proportion of low-birth weight singleton births by 10%

Tobacco: Detection and Intervention

- Screening for tobacco use in clinical settings usually consists of the patient's self-report of tobacco use when queried by the health provider ("Do you use any form of tobacco?" or "Have you smoked any cigarettes in the past 12 months?") followed by assessment of quantity consumed for those screening positive

- *Treating Tobacco Use and Dependence, (2002)* a clinical practice guideline for physicians, concluded that screening for tobacco use significantly increased rates of physician intervention and that dependence treatment is effective including the 5 A's (ask, advise, assess, assist, arrange) as well as pharmocotherapies

- The 2008 updated version of the guideline recommends psychosocial interventions for pregnant women, but notes that the safety and efficacy of medications has not been established for this population

Tobacco: Detection and Intervention

- **A useful guide for clinicians (*Helping Smokers Quit: A Guide for Clinicians)* is available at www.ahrq.gov/clinic/tobacco/clinhlpsmksqt.htm.**

- **A randomized controlled study found a 35% non-disclosure rate for smoking among pregnant women when they compared cotinine levels to the women's self-report .**

- **Use of a multiple-choice format for assessing smoking status in pregnant women that offers the three options "I smoke regularly now, about the same as before finding out I was pregnant"; "I smoke regularly now, but I've cut down since I found out I was pregnant" ; or " I smoke every once and awhile" has been shown to improve disclosure .**

Tobacco: Recommendation

- All childbearing aged women should be screened for tobacco use.
- A brief intervention should be provided to all tobacco users that includes: counseling describing the benefits of not smoking before, during, and after pregnancy; a discussion of medications; and referral to more intensive services (individual, group, or telephone counseling) if the woman is willing to use these services.

Illicit Substances: Burden of Risk and Disease

- In the 2006 NSDUH, 10% of non-pregnant childbearing-aged women (15-44 years) reported illicit drug use in the past month and 4% of pregnant women reported illicit drug use in that same time period.
- Women who use illicit drugs often experience higher rates of STDs, HIV, hepatitis, domestic violence, and depression as compared to women who do not use illicit drugs.
- Use of illicit drugs during pregnancy is associated with an increased risk of maternal complications as well as adverse outcomes for infants and children.
- The effects of cocaine and marijuana have been the focus of a number of studies.

Illicit Substances: Burden of Risk and Disease

- Cocaine use has been linked to increased risks for low birth weight, prematurity, perinatal death, abruptio placenta, and small for gestational age births
- Increased risk for maternal and postneonatal mortality has been reported for women with substance abuse disorders in general
- Marijuana has been implicated in effects on intellectual development in young children using the Stanford-Binet Intelligence Scale

Illicit Substances: Detection and Intervention

- While a number of well-validated brief instruments are available for use in primary care setting for screening childbearing- aged women for alcohol abuse, fewer such instruments are available for use in screening women for illicit drug use
- A recent systematic review of screening instruments for illicit drug use found fair evidence for the use of the CRAFFT in adolescents
- For adult populations, the Alcohol Substance Involvement Screening Test (ASIST) and the Drug Abuse Screening Test (DAST) have acceptable accuracy and reliability for use in practice settings
- SAMHSA's Center for Substance Abuse Treatment has released 3 best practices guidelines for treatment of substance abuse, all recommend screening by either clinician questioning or use of a validated screening tool with follow-up assessment of those screening positive; brief interventions for mild to moderate substance-related problems and referral to specialized treatment for dependence disorders
- ACOG endorses use of universal screening questions, brief interventions, and referral to treatment for both obstetric and gynecologic patients

CRAFFT is an acronym for the first letter of key words in the screener's question: **C**= Have you ever ridden in a CAR driven by someone (including yourself who was high or had been using alcohol or drugs? **R**=Have you ever use alcohol or drugs to RELAX, feel better about yourself, or fit in? **A**= Do you ever use alcohol or drugs while you are by yourself, ALONE? **F**=Do you ever FORGET things you did while using alcohol or drugs? **F**= Does your family or do your FRIENDS ever tell you that you should cut down on your drinking or drug use? **T**= Have you ever gotten into TROUBLE while you were using alcohol or drugs?

Illicit Substances: Detection and Intervention

- Effective interventions for treating illicit drug abuse and dependence are both behavioral and pharmacological
- Types of psychosocial treatments include contingency management, relapse prevention, general cognitive behavior, and cognitive behavior therapy and contingency management combined
- Medications used in the polysubstance use studies included methadone and buprenophine; methadone in the opiate studies; and naltrexone, buprenorphine, and methadone in the cocaine studies
- Antidepressants are also used in treating cocaine abuse
- Some evidence exists for reducing drug-exposed pregnancies by improving contraception use among women who are sexually active and engaging in alcohol and illicit drug abuse

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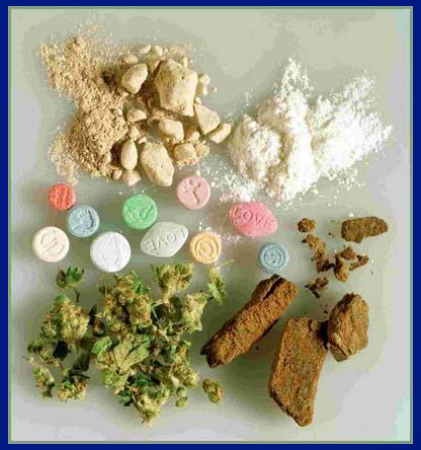
Illicit Drug Use: Recommendation

- A careful history should be obtained to identify use of illegal substances as part of the preconception risk assessment.
- Childbearing aged women should be counseled on the risks of illicit drug use before and during pregnancy and offered information on counseling and treatment programs that support abstinence and rehabilitation.
- Contraception services should be offered and pregnancy should be delayed until individuals are drug free.



Conclusions:

- Alcohol, tobacco, and illicit drug use pose significant health risks to the health of childbearing aged women and their children.
- Early identification of patterns of use of these substances in the preconception period provides the opportunity to assist women in reducing major health risks.
- Studies have shown the feasibility and efficacy of interventions designed to reduce substance use in childbearing aged women.
- Implementation of the recommendations of this report in clinical practice settings can play an important role in improving the health of women and their families.