disease prevention news

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Screening for Alcohol Use During Pregnancy

Alcohol consumption during pregnancy puts the baby at risk of serious, sometimes lifelong health problems. Health care providers can play an essential role in preventing alcohol-related birth defects. To assist health professionals with the daunting task of intervening in this type of behavioral issue, the National Center for Education in Maternal and Child Health, in cooperation with the Maternal and Child Health Bureau of the US Public Health Service, produced the report Screening for Substance Abuse during Pregnancy: Improving Care, Improving Health.[1] *Adapted from this report, this DPN article discusses the benefits of screening for alcohol consumption during pregnancy and the role of health care providers in detecting and reducing substance abuse during pregnancy. It also includes sample screening questions, physician responses, and referral sources for further assessment or substance abuse treatment.*

Alcohol consumption during pregnancy increases the risk of spontaneous abortion, miscarriage, preterm delivery, and intrauterine growth retardation. Alcohol can cause physical malformations and damage the baby's central nervous system (CNS). CNS problems include decreased intelligence, learning problems, and behavioral problems. One of the most serious outcomes of maternal alcohol consumption during pregnancy is fetal alcohol syndrome (FAS), a constellation of physical abnormalities and problems of behavior and cognition. A diagnosis of FAS requires abnormalities in three areas: growth retardation; central nervous system involvement; a characteristic facial dysmorphology[2]

In 1995, 16.3% of pregnant women reported drinking alcohol during the month prior to being surveyed, with 3.5% of pregnant women reporting 5 or more drinks on one occasion or an average of 7 or more drinks per week.[3] An important step in preventing alcohol related birth defects is identifying women at risk for alcohol abuse. However, addiction experts estimate that up to 90% of people who abuse drugs or alcohol are able to maintain their normal lifestyles during the early stages of heavy use. Pregnant women who are abusing alcohol are no more likely than nonabusing patients to miss appointments, start prenatal care late, or come in intoxicated.

Screening for Alcohol Abuse

Testing for alcohol in blood, in urine, or on the breath detects only very recent use, as alcohol is rapidly metabolized. These lab tests provide no information on frequency or length of use. How, then, can health care providers identify women at risk of alcohol or other substance abuse?

The most reliable method to evaluate alcohol consumption is by using an alcohol screening tool, which should be incorporated into routine health care for both pregnant and nonpregnant women. Screening tools are brief questionnaires designed to identify people who are at risk of alcohol or other substance abuse and who would benefit from a more comprehensive evaluation. Some screening tools are just 4 or 5 questions that can be asked in about a minute. Good screening tools provide the opportunity for an open, nonjudgmental discussion of alcohol and drug use.

Benefits of Screening

Identification of alcohol use during pregnancy allows for intervention to reduce the risk to the fetus. Women in recovery have reported they wanted help during pregnancy but didn't know how to ask. For those women in whom you suspect substance

Continued ☞

Also in this issue

Vaccines Reduce Disease in the 20th Century
Perspectives in Public Health Conference
Conference Registration Form

abuse, but who have not disclosed it to you, it is still important to discuss the benefits of reduction or abstinence. Pregnant women are concerned about the health of their babies, and many women will reduce their use of drugs or alcohol on the advice of their health care provider.

For pregnant women without substance abuse problems, screening offers the opportunity to discuss the risks of alcohol or other drug use during pregnancy. Among women who are not pregnant, screening provides an occasion to discuss the benefits of giving up alcohol before becoming pregnant or as soon as the woman suspects she may be pregnant. For sexually active women who drink heavily, screening presents a chance to discuss the importance of using effective contraceptive methods until drinking can be controlled for the length of a pregnancy.

Screening, identification, and intervention result in healthier women and babies. It is a low-cost way to provide optimal health care.

Using Screening Tools

Health care professionals have the skills to identify and refer at-risk women for treatment. The basic skills of interviewing, being empathic and supportive, providing education on the risks of continuing adverse behaviors, describing the benefits of treatment, making referrals, and following up are no different than for any other medical problem.

Four examples of screening tools for alcohol use are provided below. Any woman who consumes more than 4 consecutive drinks at least once a week is at risk for alcohol abuse.[4] No minimum amount of alcohol consumption has been established as "safe" for pregnant women.

Choose the screening tool that suits your style and ask the questions in a nonjudgmental, nonthreatening manner. It may be helpful to practice asking the screening questions. Avoid making statements such as “You don’t drink or use drugs, do you?” or “Now that you’re pregnant, just don’t drink,” as these sorts of statements may reinforce denial. It is also important to recognize and address personal attitudes that may be unintentionally conveyed during an interview and influence a patient’s response.

Be prepared to answer patients’ questions about why you are asking. An introductory statement such as “I ask all my patients these questions because it’s important to their health and the health of their babies” will help to set the tone. For patients with a negative screen (no risk determined) discuss the benefits of avoiding alcohol during pregnancy.

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Ten-Question Drinking History[4]

Beer: How many times a week do you drink beer?
How many cans or bottles do you have at one time?
Do you ever drink more?

Wine: How many times a week do you drink wine?
How many glasses do you have at one time?
Do you ever drink more?

Liquor: How many times a week do you drink liquor?
How many drinks do you have at one time?
Do you ever drink more?

Has your drinking changed during the past year?

Any woman who consumes more than 4 consecutive drinks at least once a week is at risk for alcohol abuse.

TWEAK[5]

Tolerance:* How many drinks does it take for you to feel *high*?
Alternate wording: How many drinks can you *hold* (before falling asleep or passing out)?

Worry: Do friends or relatives ever worry or complain about your drinking?

Eye-opener: Have you ever had a drink first thing in the morning to steady your nerves or get rid of a hangover?

Amnesia: Have you ever awakened the morning after some drinking the night before and found that you could not remember part of that evening?
Alternate wording: Has a friend or family member ever told you about things you said or did while you were drinking that you could not remember?

"**K**ut" down: Have you ever felt that you ought to cut down on your drinking?

* *Ask only* ***one*** *of the tolerance questions.* The *high* question works well for women who frequently have 3 or 4 drinks, but never drink to the point of passing out. The *hold* question detects drinking patterns where large amounts of alcohol are consumed at one time.

A woman scores 2 points on the tolerance question if she needs more than two drinks to feel high, or if she can hold more than five drinks without falling asleep or passing out. A positive response to the worry question scores 2 points, and a positive response to each of the last three questions scores 1 point each. A total score of 2 or more is a positive screen for risk drinking.

T-ACE[6]

Tolerance: How many drinks does it take for you to feel high?

Annoyed: Have people annoyed you by criticizing your drinking?

Cut down: Have you ever felt you ought to cut down on your drinking?

Eye-opener: Have you ever had a drink first thing in the morning to steady your nerves or get rid of a hangover?

The tolerance question scores 2 points if the respondent needs more than two drinks to feel high. For the other three questions, each yes scores 1 point. A total score of 2 or more points is a positive screen for risk drinking.

Screening for Substance Abuse during Pregnancy: Improving Care, Improving Health is not copyrighted. Readers are free to duplicate and use all or part of the information provided they properly cite the source. The report is available on the internet in .pdf format at http://www.nmchc.org/html/fulltext.htm. Single copies are available at no charge from: National Maternal and Child Health Clearinghouse, 2070 Chain Bridge Road, Suite 450, Vienna, VA 22182-2536, (703) 356-1964, FAX (703) 821-2098.

AUDIT[7]

1. How often do you have a drink containing alcohol?
   (0) never
   (1) monthly
   (2) 2-4 times a month
   (3) 2-3 times a week
   (4) 4 or more times a week

2. How many drinks containing alcohol do you have on a typical day when you are drinking?
   (0) 1-2
   (1) 3 or 4
   (2) 5 or 6
   (3) 7-9
   (4) 10 or more

3. How often do you have 6 or more drinks on one occasion?
   (0) never
   (1) less than monthly
   (2) monthly
   (3) weekly
   (4) daily or almost daily

4. How often during the last year have you found that you were unable to stop drinking once you started?
   (0) never
   (1) less than monthly
   (2) monthly
   (3) weekly
   (4) daily or almost daily

5. How often during the last year have you failed to do what was normally expected of you because of drinking?
   (0) never
   (1) less than monthly
   (2) monthly
   (3) weekly
   (4) daily or almost daily

6. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?
   (0) never
   (1) less than monthly
   (2) monthly
   (3) weekly
   (4) daily or almost daily

7. How often during the last year have you felt guilt or remorse after drinking?
   (0) never
   (1) less than monthly
   (2) monthly
   (3) weekly
   (4) daily or almost daily

8. How often during the last year have you been unable to remember what happened the night before because of drinking?
   (0) never
   (1) less than monthly
   (2) monthly
   (3) weekly
   (4) daily or almost daily

9. Have you or someone else been injured as a result of your drinking?
   (0) no
   (2) yes, but not in the last year
   (4) yes, during the last year

10. Has a friend, relative, doctor, or other health worker been concerned about your drinking or suggested you cut down?
    (0) no
    (2) yes, but not in the last year
    (4) yes, during the last year

Scores for each answer are in parentheses. A score of 8 or more is considered a positive screen.

Handling a Positive Screen

Patients with a positive screen are likely to be drinking at risky levels and warrant further assessment and follow-up. The key steps are as follows:

- Review what the patient has just reported to you.
- Express your concern for the health of the mother and baby.
- State that you know the mother wants her baby to be as healthy as possible, and that she can improve her baby's health by stopping use of alcohol and drugs.
- Assure her that the benefits will begin as soon as she reduces or stops use, and that the earlier she is able to stop, the better.
- Emphasize the importance of quitting alcohol and drugs, and tell her you will help her accomplish this.
- Discuss possible methods to help her stop, such as counseling, 12-step programs, and addiction treatment programs.
- Recommend a referral to a specialist for a more in-depth assessment. If possible, make an appointment while the patient is still in your office.
- Schedule a follow-up visit after her drug/alcohol assessment. Maintain interest and praise any reduction in use she reports.
- Monitor progress through communication with the treatment provider.

If you are in an area where access to formal treatment programs is limited or nonexistent, it may be up to you to help your patient reduce her substance use during pregnancy. Meet with her frequently (weekly or biweekly, as is done with other high risk pregnancies) to express your concern and the seriousness of the situation. Recommend that she reduce her use by one-half each day. Try to find out if her substance use is related to other troubles in her life, such as depression, marital problems, domestic violence, or a history of physical or sexual abuse, and seek referrals for these underlying problems. Remain positive and supportive, praise reductions in use, and continue to express your belief that she can succeed.

Prepared by Mary K. Ethen, MPH, Texas Birth Defects Monitoring Division

Adapted from Morse B, Gehshan S, and Hutchins E. Screening for Substance Abuse during Pregnancy: Improving Care, Improving Health. Arlington, VA: National Center for Education in Maternal and Child Health, 1997.

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Vaccines Dramatically Reduce Disease in the 20th Century

As the year 2000 approaches, the media are filled with retrospectives of the major milestones of 20th Century. One of the most dramatic public health accomplishments of this century has been the impact of vaccines on several infectious diseases that historically resulted in widespread illness and many deaths.

Few effective treatment and preventive measures existed to prevent infectious diseases. Although the first vaccine against smallpox was developed in 1796, more than 100 years later smallpox was still not under control. Four other vaccines—against rabies, typhoid, cholera, and plague—were developed in the latter part of the 19th century but were not used widely used until well into the 20th century. National efforts to promote vaccine use among all children began in 1955 after polio vaccine was introduced. Since then federal, state, and local governments and public and private health-care providers have collaborated to maintain the vaccine delivery ystem in the US. The following table illustrates 20th century morbidity and 1998 provisional morbidity from nine vaccine preventable diseases.

20th Century Morbidity for Selected Vaccine Preventable Diseases in the US[1]

Disease	Baseline 20th Century Annual Morbidity	1998 Provisional Morbidity	% Decrease[2]
Smallpox	48,164[3]	0	100
Diphtheria	175,885[4]	1	100
Pertussis	147,271[5]	6,279	96
Tetanus	1,314[6]	34	97
Polio (paralytic)	16,316[7]	0[8]	100
Measles	503,282[9]	89	100
Mumps	152,209[10]	606	100
Rubella	47,745[11]	345	99
Congenital rubella Syndrome	823[12]	5	99
Haemophilus influenza type b	20,000[13]	54[14]	99

1 Vaccines recommended before 1990 for unversal use in children in the United States
2 Rounded to nearest tenth
3 Average annual number of cases, 1900-1904
4 Average annual number of reported cases, 1920-1922
5 Average annual number of reported cases, 1922-1925
6 Estimated number of cases based on reported number of deaths, 1922-1926, assuming a case-fatality rate of 90%
7 Average annual number of reported cases, 1951-1954 (4 years before vaccine licensure)
8 Excludes 1 case of vaccine-associated polio reported in 1998
9 Average annual number of reported cases, 1958-1962 (5 years before vaccine licensure)
10 Number of reported cases in 1968 (year reporting began and first year after vaccine licensure)
11 Average annual number of reported cases, 1966-1968 (3 years before vaccine licensure)
12 Estimated number of cases based on seroprevalence data in the population and on the risk that women infected during a childbearing year would have a fetus with congenital rubella syndrome
13 Estimated number of cases from population-based surveillance studies before vaccine licensure in 1985
14 Excludes 71 cases of H. influenza disease of unknown serotype

Adapted from CDC. Achievements in Public Health, 1900-1999 Impact of Vaccines Universally Recommended for Children—United States, 1990-1998. MMWR 1999; 48(12):243-248. Available online at the CDC homepage, http://www.cdc.gov.

Perspectives in Public Health: Texas Department of Health (TDH) Quarterly CME Conference

On Friday, December 10, 1999, from 8:00 AM to 4:00 PM, the Texas Department of Health (TDH) will present its Perspectives in Public Health: TDH Quarterly CME Conference. Designed for public health and primary care physicians, the conference will be held at the North Austin Medical Center, in the Decherd Auditorium, 12221 Mopac Expressway N. in Austin, Texas. The program will consist of lectures supplemented by audiovisual slide presentations.

After attending this conference, the participants will be able to

- prevent, detect at an early stage, treat, control, or take remedial action against specific medical conditions that may adversely affect the health of individuals and populations in Texas;
- identify policies, processes, and products that promote and protect the health of people and preserve environmental quality; and
- establish relationships with other physicians concerned with public health and preventive medicine issues through dialogue with presenters and other participants.

Topics covered at the upcoming conference include

- Putting Prevention Into Practice: Diabetes Overview, Management and Standards (2 hours)
  Thomas Blevins, MD, Clinical Endocrinologist, Austin Diagnostic Clinic, Austin, Texas
- Panel: First Things First: Putting Balance in Your Life (2 hours)
  Robin Dochen Atwood, EdD, Walk Texas! Project Director, University of Texas, Austin, Texas; RoseAnn Loop, PhD, Professor, Division of Nutrition, Department of Human Ecology, University of Texas, Austin, Texas; Herbert C. Munden, MD, Medical Director, Chemical Dependency Services, Charter Hospital, Austin, Texas; Kenneth N. Vogtsberger, MD, Professor, Department of Psychiatry and Human Behavior, University of North Texas Health Science Center, Fort Worth, Texas
- Medical Newsdesk
  W. S. Riggins, Jr., MD, MPH, Director, Public Health Region 8, Texas Department of Health, San Antonio, Texas
- Ethics: The Use of Coercion in Public Health
  Monty Waters, Attorney, Office of General Counsel, Texas Department of Health, Austin, Texas

This CME activity provides one hour of ethics and/or professional responsibility content.

The Texas Department of Health designates this educational activity for a maximum of 6 hours in Category 1 credit towards the AMA Physician's Recognition Award. Each physician should claim only those hours of credit that he/she actually spent in the educational activity.

This program has been reviewed and is acceptable for 5.75 prescribed hours by the American Academy of Family Physicians.

The Texas Department of Health is accredited by the Accreditation Council for Continuing Medical Education to sponsor continuing medical education for physicians. The Texas Department of Health takes responsibility for the content, quality, and scientific integrity of this CME activity.

For further information and to register, call the TDH Public Health Professional Education Program at ***(800) 252-8239, Press 4, or (512) 458-7677.*** *You may pay the registration fee at that time by credit card or you may send a check with the completed form located on the back page of this issue.*

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4C423-001 *Registration Form* DPN

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