PREVENTING, IDENTIFYING & TREATING FETAL ALCOHOL SPECTRUM DISORDERS (FASD)

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Overview of CDC Initiative:

CDC-funded FASD Practice & Implementation Centers (PICs) and National Partnerships Goals:

- Prevent alcohol-exposed pregnancies
- Promote proper identification/referral for those with FASD
- Strengthen “research to practice” linkages through partnerships between PICs and national organizations for:
  - Physicians (Family Medicine, Ob/Gyn, Pediatrics)
  - Nurses, Social Workers, Medical Assistants
- Achieving sustainable practice-level and systems-level change through an interprofessional, collaborative model
- [https://nccd.cdc.gov/FASD/](https://nccd.cdc.gov/FASD/)
What is Practice Change?

Practice change:

“Sustainable behavioral changes by providers and/or organizational change by health systems that provide evidence that targeted practices have been adopted and/or implemented into routine care.”
What is Systems Change?

Systems change:

“A change in organizational or legislative policies or in environmental supports that encourages and channels improvements in systems, community, and individual-level health outcomes.”
Training Outline

I. Part I – Definitions and Descriptions

II. Part II – Preventing Alcohol-Exposed Pregnancies

III. Part III – FASD Characteristics, Treatment, & Interventions

IV. Part IV – Addressing Stigma & Barriers

V. Part V – Social Work’s Role
Fetal Alcohol Spectrum Disorders (FASD)– Definitions and Descriptions

Part I
Learning Objectives

I. Define Fetal Alcohol Syndrome (FAS)

II. Describe and identify characteristics of prenatal alcohol exposure and Fetal Alcohol Spectrum Disorders (FASD)

III. Describe how FASDs are diagnosed
What is FAS?

Fetal Alcohol Syndrome (FAS) is a disorder resulting from exposure to alcohol during pregnancy which causes abnormalities and deficits in an individual covering three areas:

I. Growth

II. Neurobehavioral

III. Facial characteristics
Prevalence of FAS

FAS in mainstream populations may be significantly higher than previously thought.
Current FASD Diagnostic Schema

• Updated Clinical Guidelines for Diagnosing Fetal Alcohol Spectrum Disorders (Hoyme et al, *Pediatrics*, 2016)

• Canadian guidelines for diagnosis (Cook et al, *CMAJ*, 2015)

• National Task Force on FAS and FAE (2004)

• FASD 4-digit diagnostic code (Astley and Clarren, *Alcohol*, 2000)

The Diagnostic and Statistical Manual version 5 published by the American Psychiatric Association also proposes criteria for neurobehavioral disorder associated with prenatal alcohol exposure.
Diagnosis of FAS: CDC Criteria

Facial Dysmorphia

Growth Deficits

Central Nervous System Abnormalities
Physical Effects

- **Dysmorphic facial features:**
  - Short palpebral fissures
  - Smooth philtrum
  - Thin vermillion border

- **Weight and/or length growth deficiency**

- **Abnormal brain structures**
  (esp. small cranium, corpus callosum)

*Images showing:
- Short Palpebral Fissures (i.e. small eye openings)
- Indistinct Philtrum (the ridge under the nose and above the lip)
- Thin Upper Lip (thing vermillion border)*
FAS is only the tip of the iceberg
Fetal Alcohol Spectrum Disorders

a descriptive term used for the broad spectrum of disorders caused by prenatal exposure to alcohol, including:

- **FAS** (Fetal alcohol syndrome)
- **pFAS** (Partial fetal alcohol syndrome)
- **FASD**
- **ARND** (alcohol-related neurodevelopmental disorders)
- **ARBD** (Alcohol-related Birth Defects)

Neurodevelopmental disorder associated with Prenatal Alcohol Exposure (ND-PAE)*
Spectrum of FASD

- FAS (Fetal Alcohol Syndrome)
  - FAS with confirmed maternal exposure
  - FAS w/out confirmed maternal exposure

- PFAS (Partial Fetal Alcohol Syndrome)
  - Partial FAS with or w/o confirmed exposure

- ARBD (Alcohol-related Birth Defects)
  - Alcohol-related birth defects (ARBD)

- ARND (Alcohol-related Neurodevelopmental Disorder)
  - Alcohol-related neurodevelopmental disorder (ARND)

Adapted from Neuroscience and Biobehavioral Reviews (2007); 31:230-238
PEDIATRICS Vol. 106 No. 2 August 2000
Neurobehavioral Disorder associated with Prenatal Alcohol Exposure (ND-PAE), new 2013 DSM-5

- ND-PAE currently listed as a “Condition for further study” in DSM-5
- Not a billable DX, only a proposed criteria

Treatment for conditions related to alcohol exposure billable under ICD-10-CM Code: F88 (315.8, ICD-9-CM)

DSM 5 Billable Diagnosis:
Other Specified Neurodevelopmental Disorder: Neurodevelopmental Disorder associated with Prenatal Alcohol Exposure
Areas of the Brain Affected By Prenatal Alcohol Exposure

**Hypothalamus** – appetite, emotions, temperature, and pain sensation

**Frontal Lobes** – impulses and judgment; controls executive function, abstract thinking

**Cerebellum** – coordination and movement

**Basal Ganglia** – spatial memory, switching gears, working toward goals, predicting behavioral outcomes, and the perception of time

**Amygdala** – emotions, fear, fight or flight, aggression, stress, & anxiety

**Hippocampus** – memory, learning, emotion, aggression

**Corpus Callosum** – passes information from the left brain (rules, logic) to the right brain (impulse, feelings) and vice versa.

Source: Dr. Sarah Mattson, University of San Diego
Comprehensive Assessment and Management of Individuals with Prenatal Alcohol Exposure

Interprofessional Team approach

Multidisciplinary Assessment

- Psychosocial history
- Physician
  - Primary Care, Psychiatrist
- Allied Health
  - Psychologist, Speech, Occupational Therapy/Physical Therapy, Learning Disability Teaching Consultant, Social Workers
- Parents/caregivers, Teachers
- Social service agencies
  - Developmental Disabilities Services, Social Security, Child protection, substance use treatment centers)
Comprehensive Assessment and Management of Individuals with Prenatal Alcohol-Exposure

Interprofessional Team Approach

Case Management

- Diagnosis
- Early intervention and tracking
- Stable home environment
- Medication
- Case manager/mentor in school/home/communities
- Support services-family community, educational, vocational
- Supervised housing/residential facility
- Special education and vocational rehabilitation
Domains to Assess Among Individuals with Prenatal Alcohol-Exposure

- Cognition/intellectual functioning
- Executive functioning
- Activity and attention
- Learning and memory
- Processing abilities
- Language
- Motor abilities
- Sensory integration
- Social skills and adaptive behavior
- Mental health issues
Common Diagnoses Frequently Associated with Prenatal Alcohol Exposure

- Anxiety Disorders
- Attention Deficit/Hyperactivity Disorder (ADHD)
- Autism Spectrum Disorder
- Bipolar & related disorders
- Communication Disorders
- Conduct Disorder
- Depressive Disorders
- Substance Use Disorder
- Intellectual Disabilities
- Learning Disorders
- Oppositional Defiant Disorder (ODD)
- Personality Disorders (Borderline, Antisocial)
- Posttraumatic Stress Disorder (PTSD)
- Reactive Attachment Disorder
- Traumatic Brain Injury
Part I Conclusions

• **Fetal Alcohol Syndrome (FAS)** is a disorder resulting from exposure to alcohol during pregnancy which causes:
  1. *Growth deficits*
  2. *Neurobehavioral abnormalities*
  3. *Facial abnormalities*

• **FAS is only the Tip of the Iceberg!**

• **Fetal Alcohol Spectrum Disorders** is a descriptive umbrella term used for the broad spectrum of disorders caused by prenatal exposure to alcohol.

• An interprofessional team collaboratively works together to provide an accurate multidisciplinary assessment and to address the client’s needs.
PREVENTING ALCOHOL-EXPOSED PREGNANCIES

Part II
Learning Objectives

I. **Describe** the prevalence of alcohol use among U.S. women

II. **Describe** ways to help clients reduce or quit alcohol use

III. **Use** current evidence-based practices to prevent alcohol-exposed pregnancies (AEPs)
Professionals working with pregnant women or women who may become pregnant need to understand the impact of prenatal exposure to alcohol so that they might take effective steps towards preventing exposure and effectively communicating the risks of exposure, or continued exposure, to clients.
Alcohol use Among U.S. Women

45% of pregnancies in the United States are unplanned

7.3% of US women are at risk for an alcohol exposed pregnancy

3 in 4 women who want to get pregnant as soon as possible report drinking alcohol

More than 3 million US women are at risk of exposing their developing baby to alcohol.

https://www.cdc.gov/vitalsigns/fasd/
Risk factors for alcohol use after confirmation of pregnancy

- **Intimate Partner Violence:** Three times higher risk for alcohol use if abused prior to becoming pregnant and two times higher risk for alcohol use if abused during pregnancy.

- **Tobacco Use:** Seven times higher risk for alcohol use if woman continues tobacco use after becoming pregnant.

- **Other Current Drug Use:** Six times higher risk for alcohol use during pregnancy if woman is currently also using drugs.
# Fetal Development Chart

This chart shows vulnerability of the fetus to defects throughout 38 weeks of pregnancy. *Most common site of birth defects:

<table>
<thead>
<tr>
<th>Period of the Ovum</th>
<th>Period of the Embryo</th>
<th>Period of the Fetus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weeks 1-2</td>
<td>Week 3</td>
<td>Week 4</td>
</tr>
<tr>
<td>Period of early embryonic development and implantation.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Central Nervous System (CNS)—Brain and Spinal Cord

- Heart
- Arms/Legs
- Eyes
- Teeth
- Palate
- External Genitals

Pregnancy loss

- Period of development when major defects in bodily structure can occur.
- Period of development when major functional defects and minor structural defects can occur.

Adapted from Moore, 1993 and the National Organization on Fetal Alcohol Syndrome (NOFAS) 2009.

*This fetal chart shows the 38 weeks of pregnancy. Since it is difficult to know exactly when conception occurs, healthcare providers calculate a woman’s due date 40 weeks from the start of her last menstrual cycle.*
What Factors Determine if a Fetus Will be Affected?

(May 2011)
Counseling Women Regarding Alcohol Use during Pregnancy

Women may receive little or no information from their healthcare provider & may receive mixed messages or misinformation from a variety of sources regarding:

- Drinking in the third trimester
- Drinking wine rather than beer or hard liquor
- Drinking while breastfeeding
Why Universal Screening?

- Risky alcohol use is common among women of reproductive age.

- Risky alcohol use is associated with increases in experiencing intimate partner violence, alcohol-exposed pregnancies, unintended pregnancies, and physical health problems.

- Screening and brief counseling are effective at reducing risky alcohol use and alcohol-exposed pregnancies.

- Screening alone may make a difference in alcohol use.
Universal screening as the first step in prevention of prenatal alcohol exposure

• Screening consists of a validated set of questions to identify patients’ drinking patterns to assess and determine the need for further intervention.

• Screening is not a diagnosis - Results help determine next steps.

• Screening for alcohol use disorders is different from screening for risk of an alcohol-exposed pregnancy (AEP).

• Universal screening of women of reproductive age requires use of both screens- “Every woman, every time”

• Any alcohol use during pregnancy is considered at-risk.
Clinician Discomfort with Screening for Alcohol Use

**Concerns**

- Uncomfortable
- Insufficient knowledge or experience
- Concern that questions about drinking are offensive

**Eliminating Concerns**

- Routine use and practice
- Comfortable and non-judgmental in delivery of questions
- Be approachable
- Ask all clients
What is a Standard Drink?

**Standard Drink Equivalents**

<table>
<thead>
<tr>
<th>Drink</th>
<th>Alcohol Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 oz beer</td>
<td>About 5% alcohol</td>
</tr>
<tr>
<td>8–9 oz malt liquor</td>
<td>About 7% alcohol</td>
</tr>
<tr>
<td>5 oz wine</td>
<td>About 12% alcohol</td>
</tr>
<tr>
<td>1.5 oz spirit</td>
<td>About 40% alcohol</td>
</tr>
</tbody>
</table>

Adapted from: *Planning and Implementing Screening and Brief Intervention for Risky Alcohol Use: A Step by Step Guide for Primary Care Practices* (CDC, 2014)
Risky Drinking levels

<table>
<thead>
<tr>
<th>Population</th>
<th>Any Single Occasion</th>
<th>Per WEEK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthy, non-pregnant women</td>
<td>≥ 3</td>
<td>≥ 7</td>
</tr>
<tr>
<td>Healthy Men &lt; 65 years</td>
<td>≥ 4</td>
<td>≥ 14</td>
</tr>
<tr>
<td>Healthy Men &gt; 65 years</td>
<td>≥ 3</td>
<td>≥ 7</td>
</tr>
</tbody>
</table>

Any Alcohol Use is Risky for...

- Women who are pregnant, could be pregnant, or who plan to become pregnant
- Individuals who have a condition or are taking medications where use is medically inadvisable
- Individuals under the age of 21
- Individuals who have a problem with alcohol use

Adapted from: Planning and Implementing Screening and Brief Intervention for Risky Alcohol Use: A Step by Step Guide for Primary Care Practices (CDC, 2014)
Recommended Alcohol Screening Instruments

- NIAAA Single question Alcohol Screen:
  "How many times in the past year have you had X (5 for men; 4 for women) or more drinks in a day?"

- AUDIT 1-3 (US)

- AUDIT (US)

Source

Screen all women for alcohol use

- Ask specifically about alcohol use
  - Examine further if other drug use is present
- Embed questions in general health screening
- Present questions in a non-judgmental manner to promote open communication
- Ask open-ended questions and ask frequently
- Be specific when asking questions
  - Use direct, literal language
State of the Art Prevention in FASD

Brief Intervention

- Used when screening indicates risky drinking
- Advise about the risks associated with drinking too much
- Listen for pro-change talk
- Summarize the client’s feelings
- Discuss options
- Review any plans for change.
- Interventions may need to be modified for women who may have an FASD or other developmental disability to improve success
Alcohol Screening & Brief Intervention (SBI): an evidence-based public health approach to address alcohol use in the primary care setting

Alcohol Screening and Brief Intervention Basics

## SBI Reference Guide

### Steps in the BNI

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>Example Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Raise the Subject / Build Rapport</td>
<td>Do you mind if we talk about alcohol use?</td>
</tr>
<tr>
<td>2</td>
<td>Provide feedback: Explore Using MI</td>
<td>OARS</td>
</tr>
<tr>
<td>3</td>
<td>Build Readiness to Change</td>
<td>Readiness Ruler</td>
</tr>
<tr>
<td>4</td>
<td>Negotiate a Plan</td>
<td>Can we follow-up at your next visit to check-in? Would you be willing to try cutting back by X drinks?</td>
</tr>
</tbody>
</table>

### Core MI Skills

- **Open-ended Questions**
  - Tell me about...
  - What do you think about...
- **Affirmations**
  - You seem determined to improve your health...
  - It seems like you've made a great effort to...
- **Reflective Listening**
  - At this moment, you feel...
  - It sounds like you're saying that you think...
- **Summaries**
  - Let me see if I have this right...
  - So, let's review, you're somewhat/ready/not ready to quit/cut back and you have some options...

### Key Techniques & Example Language

- **Express Empathy**
  - I can imagine that might feel...
  - I care about your health and want to understand your feelings about...

- **Develop Discrepancy**
  - I'm curious, what do you like about drinking...what don't you like about drinking...

- **Roll with Resistance**
  - So, you don't think abstinence would work for you right now...

- **Support Self-Efficacy**
  - What would a realistic change look like for you?
  - What changes have you tried that worked in the past?
  - What would help make reducing your alcohol use possible?

### AUDIT 1-3 Scoring

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never (0)</td>
<td>For pregnant Women: any use for Men: &gt; 8 pts</td>
</tr>
<tr>
<td>Less than monthly (1)</td>
<td>Scores above are considered positive and optimal for identifying alcohol use disorders or risky drinking. If patient is pregnant, provide advice about the risks to her health and the developing fetus.</td>
</tr>
<tr>
<td>Monthly (2)</td>
<td></td>
</tr>
<tr>
<td>Weekly (3)</td>
<td></td>
</tr>
<tr>
<td>2-3 times a week (4)</td>
<td></td>
</tr>
<tr>
<td>4-6 times a week (5)</td>
<td></td>
</tr>
<tr>
<td>Daily (6)</td>
<td></td>
</tr>
</tbody>
</table>
Alcohol Use Interventions for Women

CHOICES (Floyd et al, 2007; Velasquez et al, 2010)

• Targets women who are not pregnant and are drinking at risky levels.
• It helps women reduce or stop drinking, use contraception, or both.
• Uses motivational interviewing to increase commitment to change.
• The CHOICES curriculum is available free of charge from the CDC.
Alcohol Use Interventions for Women

Parent-Child Assistance Program (P-CAP)

Evidence-based home visitation case-management intervention designed to address alcohol and drug use during pregnancy

**Goal:** To help mothers build healthy families and reduce prenatal drug and alcohol exposures

**How:** Case managers work with 16 families for 3 years

- Home visits twice a month
- Connect families with services
- Provide goal setting, support, and consistent coaching
- Serve as role models
REIMBURSEMENT FOR SCREENING AND BRIEF INTERVENTION

Can I get reimbursed for alcohol screening and intervention from insurance?

Some health plans will now pay for alcohol and substance use screening and brief intervention. These patient encounters must include both screening with a validated instrument, such as the AUDIT or any instruments mentioned in this guide, and counseling by a physician or other qualified health care professional of at least 15 minutes.

CPT codes are as follows:
- Screening and brief intervention 15 to 30 minutes duration—99408
- Screening and brief intervention over 30 minutes—99409

Medicare G codes:
- Screening and brief intervention 15 to 30 minutes duration—G0396
- Screening and brief intervention over 30 minutes—G0397

Medicaid H codes:
- Screening and brief intervention 15 to 30 minutes duration—H0049
- Screening and brief intervention over 30 minutes—H0050

Adapted from: Planning and Implementing Screening and Brief Intervention for Risky Alcohol Use: A Step by Step Guide for Primary Care Practices (CDC, 2014)

Why Screening and Brief Intervention May Need to be Modified for Women With an FASD

• Screening questions may be misinterpreted by someone who is literal in their thinking (Grant, et al., 2013)
• Assessment of risk might not be accurate
• A brief intervention is a verbal dialogue
• A brief intervention is expected to change behavior or encourage abstract thought
• It works with many women, but does not work with all women

Dubovsky, 2016
Need for Modifications for Women with an FASD

- If a person is very literal in their thinking, they may respond differently to screening questions depending on how they are asked.

- Individuals with an FASD have difficulty with **verbal receptive language processing** across the intellectual span.

- Motivational interviewing relies on verbal processing and self-directed behavior change.
Part II Conclusions

- Approximately **7.3%** of women are at risk for an alcohol-exposed pregnancy.
- Alcohol can effect the fetus at any point during development.
- Universal alcohol screening for all women of reproductive age is crucial!
- Evidence-based interventions such as SBI & CHOICES help to prevent, reduce, or stop risky alcohol use and prevent alcohol-exposed pregnancies.
- Prevention and intervention strategies may need to be adapted for individuals living with an FASD.
Catalyst Learning Center is a digital learning environment, centered on the learner, that aims to serve as a catalyst for change in the way that each learner approaches health and care delivery.
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