Neurocognitive Impairments & Prenatal Alcohol Exposure

Risk Markers
- Maternal
  - Age
  - Parity
  - Smoking
  - Family History - FASD
- Child
  - Foster Care
  - Adopted
- Sibling
  - FASD
  - Dead
  - Foster Care
  - Adopted

Exposure
- Insufficient
- Sufficient

Accompanying or Alternative Exposures
- Neglect
- Abuse
- Malnutrition
- Genetic Syndrome
- Chromosomal Abnormality
- Anticonvulsants
- Valporate

ARND

Impairment
- Cognitive
- Adaptive Behavior
- Speech and Language
- Gross, Fine Motor, Balance
- Mental Disorders
- CNS Anomalies, Seizures, Cerebral Palsy

Diagnosis of Alcohol Related Neurodevelopmental Disorders

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RISK AND EXPOSURE ASSESSMENT:
FETAL ALCOHOL SPECTRUM DISORDERS

Screening for Prenatal Alcohol Exposure

When was your last drink?

<table>
<thead>
<tr>
<th>Before</th>
<th>Pregnancy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<tr>
<td>Pre-awareness</td>
<td>Post-awareness</td>
</tr>
<tr>
<td>Unexposed</td>
<td>Exposed &amp; High Risk</td>
</tr>
</tbody>
</table>

Exposure Modifiers

Maternal

- Mother dead
- Drug use
- In jail
- Smoked during pregnancy

Paternal

- Father dead
- In jail

Assessment of Exposure During Pregnancy

Chart These

On average, how many days per week did you drink during pregnancy? (a)

On an average drinking day during pregnancy, how many drinks did you have? (b)

How many days per month did you have 4 or more drinks during pregnancy? (c)

What is the most you had to drink on any one day during pregnancy? (d)

What is a drink? Alcohol %, Drink vol

Exposure Parameters

(Pregnancy Drinking Days = \( a \times 40 \)) = (e)
Estimates number of drinking days during pregnancy.

Percentage of Days Exposed During Pregnancy

Estimates days exposed during pregnancy. = \( e + 280 \) =

Number of Binge Days

(4 or more drinks in one day) = \( c \times 9 \) =
Estimates numbers of binge days.

Number of Drinks During Pregnancy = \( a \times b \times 40 \) = (f)
Estimates cumulative number of drinks during pregnancy.

Ounces of absolute alcohol = \( f + 2 \)
Estimates cumulative absolute alcohol exposure during pregnancy.

Number of Drinks During Pregnancy

On average, how many days per week did you drink?

On an average drinking day, how many drinks did you have?

Maternal Risk Score

- Age over 25 years
- Unmarried, divorced, widow, living with partner
- On TANF, WIC, Social Security or income < $16,000 per year
- Did not graduate from high school
- Poor diet
- Smokes more than 1/2 pack per day
- Drinks less than 2 days/week & less than 2 drinks/drinking day
- Age first drunk—less than 15 years
- In treatment over three times
- In treatment in last 12 months
- Previous child with FASD, birth defect or developmental disability
- Previous child died
- Children out of home (foster care or adopted)
- Heavy drinker (drinks 3 or more drinks/day for 3 or more days per week, or more than 5 drinks/day on 6 or more occasions)
- Uses inhalants, sniffers, huffs or illegal drugs

Score | Risk Category | Recommendations |
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>0</td>
<td>None</td>
<td>Standard prenatal care</td>
</tr>
<tr>
<td>5</td>
<td>Low</td>
<td>Standard prenatal care</td>
</tr>
<tr>
<td>20-40</td>
<td>Moderate</td>
<td>Standard prenatal care and patient education on FASD</td>
</tr>
<tr>
<td>45-50</td>
<td>High</td>
<td>High risk pregnancy, alcohol-drug abuse treatment</td>
</tr>
<tr>
<td>55-105</td>
<td>Very High</td>
<td>High risk pregnancy, alcohol-drug abuse treatment</td>
</tr>
</tbody>
</table>

Total Score
THE ARND BEHAVIORAL CHECKLIST

Name/ID: ____________________ DOB: ___/___/____ AGE: ____ SEX (circle one): F M

RACE (circle one): Caucasian Native American African American Other

In order to complete this checklist:
1) Behaviors must be impaired for the age of the person being assessed.
2) Interviewee needs to have known the person being assessed for at least one month.

CHECK ALL THAT APPLY FOR THE APPROPRIATE AGE RANGE

<table>
<thead>
<tr>
<th>BEHAVIOR</th>
<th>3-6 Yrs.</th>
<th>7 Yrs.+</th>
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</thead>
<tbody>
<tr>
<td>Hyperactive</td>
<td></td>
<td></td>
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<tr>
<td>Poor attention</td>
<td></td>
<td></td>
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<tr>
<td>Impulsive</td>
<td></td>
<td></td>
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<tr>
<td>Disorganized</td>
<td></td>
<td></td>
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<tr>
<td>Seems unaware of consequences of actions</td>
<td></td>
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<tr>
<td>No fear</td>
<td></td>
<td></td>
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<tr>
<td>Would leave with a stranger</td>
<td></td>
<td></td>
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<tr>
<td>Poor social skills</td>
<td></td>
<td></td>
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<tr>
<td>Few friends</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Will talk or interact with anyone</td>
<td></td>
<td></td>
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<tr>
<td>Easily manipulated and set up by others</td>
<td></td>
<td></td>
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<tr>
<td>Socially inept (inappropriate speech or touching)</td>
<td></td>
<td></td>
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<tr>
<td>Difficulty staying on topic during conversation</td>
<td></td>
<td></td>
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<tr>
<td>Always talking</td>
<td></td>
<td></td>
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<tr>
<td>Cocktail speech - little content</td>
<td></td>
<td></td>
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<tr>
<td>Too loud</td>
<td></td>
<td></td>
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<tr>
<td>Can’t remember from one day to the next</td>
<td></td>
<td></td>
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<tr>
<td>Below average IQ (&lt;85)</td>
<td></td>
<td></td>
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<tr>
<td>Poor school performance</td>
<td></td>
<td></td>
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<tr>
<td>Suspended or expelled from school</td>
<td></td>
<td></td>
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<tr>
<td>Poor sleeper</td>
<td></td>
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<tr>
<td>Can’t follow routine - needs reminders to get dressed, brush teeth, etc.</td>
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<td></td>
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<tr>
<td>Temper tantrums</td>
<td></td>
<td></td>
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<tr>
<td>Extreme mood swings</td>
<td></td>
<td></td>
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<tr>
<td>Requires constant supervision</td>
<td></td>
<td></td>
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<tr>
<td>Been in trouble with the law</td>
<td></td>
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<tr>
<td>Inpatient treatment for mental health, substance abuse, or in jail</td>
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<td></td>
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<tr>
<td>In appropriate sexual behavior</td>
<td></td>
<td></td>
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<tr>
<td>Poor motor skills</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Has or needs glasses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Had foster care or was adopted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medication for behavior - ever</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother used alcohol during pregnancy (OPTIONAL)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother used alcohol in last five months of this pregnancy (OPTIONAL)</td>
<td></td>
<td></td>
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<tr>
<td>Mother has been in treatment for alcohol use (OPTIONAL)</td>
<td></td>
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</tbody>
</table>

TOTAL CHECKED:

16  20

(Continue assessment if score is greater than or equal to above.)
Neurobehavioral Disorder Associated With Prenatal Alcohol Exposure

Name: ___________________________  Birth Date: ___________________________  dd/mm/year

Gender: ______  Current Age: ______

Proposed Criteria

____ A. More than minimal exposure to alcohol during gestation, including prior to pregnancy recognition. Confirmation of gestational exposure to alcohol may be obtained from maternal self-report of alcohol use in pregnancy, medical or other records, or clinical observation.

____ B. Impaired neurocognitive functioning as manifested by one or more of the following:
   ____ 1. Impairment in global intellectual performance (i.e., IQ of 70 or below, or a standard score of 70 or below on a comprehensive developmental assessment).
   ____ 2. Impairment in executive functioning (e.g., poor planning and organization; inflexibility; difficulty with behavioral inhibition).
   ____ 3. Impairment in learning (e.g., lower academic achievement than expected for intellectual level; specific learning disability).
   ____ 4. Memory impairment (e.g., problems remembering information learned recently; repeatedly making the same mistakes; difficulty remembering lengthy verbal instructions).
   ____ 5. Impairment in visual-spatial reasoning (e.g., disorganized or poorly planned drawings or constructions; problems differentiating left from right).

____ C. Impaired self-regulation as manifested by one or more of the following:
   ____ 1. Impairment in mood or behavioral regulation (e.g., mood lability; negative affect or irritability; frequent behavioral outbursts).
   ____ 2. Attention deficit (e.g., difficulty shifting attention; difficulty sustaining mental effort).
   ____ 3. Impairment in impulse control (e.g., difficulty waiting turn; difficulty complying with rules).

____ D. Impairment in adaptive functioning as manifested by two or more of the following, one of which must be (1) or (2):
   ____ 1. Communication deficit (e.g., delayed acquisition of language; difficulty understanding spoken language).
   ____ 2. Impairment in social communication and interaction (e.g., overly friendly with strangers; difficulty reading social cues; difficulty understanding social consequences).
   ____ 3. Impairment in daily living skills (e.g., delayed toileting, feeding, or bathing; difficulty managing daily schedule).
   ____ 4. Impairment in motor skills (e.g., poor fine motor development; delayed attainment of gross motor milestones or ongoing deficits in gross motor function; deficits in co-ordination and balance).

____ E. Onset of the disorder (symptoms in Criteria B, C, and D) occurs in childhood.

____ F. The disturbance causes clinically significant distress or impairment in social, academic, occupational, or other important areas of functioning.

____ G. The disorder is not better explained by the direct physiological effects associated with postnatal use of a substance (e.g., a medication, alcohol or other drugs), a general medical condition (e.g., traumatic brain injury, delirium, dementia), another known teratogen (e.g., fetal hydantoin syndrome), a genetic condition (e.g., Williams syndrome, Down syndrome, Cornelia de Lange syndrome), or environmental neglect.

Diagnostic and Statistical Manual of Mental Disorders, 5th Edition, 2013