NNEPQIN
NORTHERN NEW ENGLAND
PERINATAL QUALITY IMPROVEMENT NETWORK

The following guideline is intended as a general educational resource for hospitals and clinicians, and not intended to reflect or establish a standard of care or to replace individual clinician judgment and medical decision making for specific healthcare environments and patient situations.

Screening for Alcohol, Tobacco and Drug Use in Pregnancy
4/1/2018

Prevention, identification, and reduction of perinatal opioid and other substance use during pregnancy and the postpartum period are critical to support the health and wellbeing of women and their infants (World Health Organization [WHO], 2014). Universal screening for drug and alcohol use is an essential first step in identifying women with substance use disorders and linking them with services at the appropriate level of care (WHO; Patrick and Schiff, 2017; American College of Obstetricians and Gynecologists [ACOG], 2017; American Society of Addiction Medicine [ASAM], 2016; American College of Nurse Midwives [ASCNM], 2004). Screening should be inclusive of illicit drug, alcohol, and tobacco use.

Perinatal substance use exists across all socioeconomic groups and geographic areas (National Survey on Drug Use and Health, 2015). In the United States, approximately 10% of pregnant women report the use of alcohol during pregnancy, including 4% who drink more the 5 drinks at one time, 5% report the use of illicit drugs, and over 15% report smoking tobacco (National Survey on Drug Use and Health, 2013). Obstetrical care providers therefore have a professional obligation to screen all patients for substance use in pregnancy (ACOG, 2017). The Screening, Brief Intervention, and Referral for Treatment (SBIRT) approach described below is aligned with recommendations in the recently published *Clinical Guidance for the Treatment of Pregnant and Parenting Women with Opioid Use Disorder and their Infants* (SAMHSA, 2018).

Definitions

At-risk Substance Use: Excessive use of a substance which places the person at risk for developing a substance use disorder. Any use of alcohol, tobacco, or illicit substances during pregnancy is considered risky use, whether identified by verbal screening or toxicology testing.

Substance Use Disorder (SUD): The recurrent use of alcohol, tobacco, and/or drugs which causes clinically and functionally significant impairment, such as health problems, physical or cognitive disability, and failure to meet responsibilities at work, school, or home as defined in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) (American Psychiatric Association, 2013). SUDs are manifested by impaired control, social impairment, risky use, and sometimes physical dependence and may be classified as mild, moderate, or severe depending on the number of DSM-5 criteria met (see also https://www.samhsa.gov/disorders/substance-use).

Approach

NNEPQIN recommends a population based approach, in which all pregnant women are screened at entry to maternity care and again in the third trimester and at delivery. It is the responsibility of all maternity

care providers to ensure that women who screen at risk for perinatal substance use receive a follow up assessment and brief intervention and are linked to appropriate services. A positive screen indicates the presence of at-risk substance use at some point, but does not necessarily identify current substance use or risk to the mother or fetus. For example, a woman might screen positive for moderate alcohol use prior to pregnancy, but has since discontinued drinking. However, a positive screen should always be followed up with a discussion about current and anticipated future risk.

The use of a standardized questionnaire at regular intervals during pregnancy is recommended as the most effective method of integrating screening into routine practice (ACOG, 2017; American Academy of Pediatrics [AAP], 2017). Validated questionnaires used in screening programs, when combined with brief intervention, are recognized by CPT and reimbursement is available in many states.

Screening Instruments

A number of screening instruments for drug and alcohol use have been validated for use during pregnancy, among these the Substance Use Risk Profile, AUDIT-C (alcohol only), CRAFFT (for women under age 26), ASSIST, and 4 Ps Plus are commonly utilized (Bush, et al, 1998; Chang, et al 2011; Chasnoff, et al, 2005; Hotham, et al, 2013; Yonkers, et al, 2011). Other instruments such as the DAST (Skinner, 1982) have been validated for screening of adult women, but not specifically for prenatal use. Screening for use of tobacco and other nicotine delivery products is generally accomplished through direct questions about use, type, and amount.

The majority of the instruments listed above have been developed specifically for antenatal screening for at risk substance use, but there is no consensus regarding which tool is best. Each practice or hospital unit must determine which screening tool is optimal given local needs and circumstances.

Urine Drug Testing

Concordant with national recommendations (ACOG, 2017, Patrick, 2017), NNEPQIN recommends universal verbal screening using an SBIRT approach for all prenatal patients. Urine toxicology testing is routinely used to promote accountability during substance use treatment, but its use is controversial as a method of screening for prenatal substance use (ACOG, 2017; Patrick, 2017; Prasad, 2016; Lester, et al 2001; Ostrea, et al, 2001; Tassiopoulos, et al, 2010; El Maroon, et al, 2011; Grekin, et al, 2010; Christmas, et al, 1992). Some prenatal providers combine routine urine toxicology testing with the use of screening questionnaires (Goler, et al, 2008), while others (Meyer, et al, 2008) utilize a risk-based approach to urine toxicology when unexpected obstetrical or neonatal problems occur such as placental abruption, preterm labor, late entry to care, or suspected intoxication.

Whenever urine toxicology is recommended, verbal or written informed consent should be obtained prior to testing except in emergency situations or when a patient is unable to participate in the consent process. SAMHSA's *Clinical Guidance for the Treatment of Pregnant and Parenting Women with Opioid Use*

Disorder and their Infants (SAMHSA, 2018) specifies that a consent discussion for substance use testing should include both risks and limitations of the test and the need for confirmatory testing if positive.

Drug tests are perceived as invasive by pregnant women (Roberts and Nuru-Jetter, 2010), and may have legal consequences depending on the state in which they are performed (Guttmacher Institute, 2016). Research suggest that women who use substances regularly may be reluctant to participate in prenatal care if drug testing is anticipated (Roberts and Pies, 2010, Roberts and Nuru-Jetter, 2010; Tucker Edmonds, et al, 2016). An additional consideration for the use of urine toxicology is vulnerability to tampering. Urine samples can be substituted or otherwise falsified unless closely observed. A wide range of products and advice on how to do this are available on the internet.

Most substances have a fairly short window of detection in urine (1-3 days), with the exception of marijuana and certain benzodiazepines, thus limiting their sensitivity to detect intermittent use. Most urine drug panels do not include alcohol, which must be ordered separately. Rapid urine drug tests have high false positive rates for some substances, therefor positive values should always be sent for confirmatory testing (Johnson-Davis, et al 2016), which adds expense. Because confirmatory tests are generally sent to outside labs tests, definitive results are often delayed. Clinical decision making should never be based on the results of rapid drug test results due to their inherent inaccuracy (SAMHSA, 2018).

Brief Interventions for Substance Use

A pregnant woman with a positive screen for prenatal drug or alcohol use should meet with a health care provider for brief intervention to determine her level of need for services. When a woman has discontinued substance use due to pregnancy, she should be supported and congratulated, and encouraged to discuss her risk of resuming use after her baby is born. When a woman discloses continuing use during pregnancy, her courage in revealing this should be acknowledged, and every effort made to link her to services which are both accessible and acceptable to her. ACOG recommends that obstetrical providers learn the skills of brief intervention and referral to treatment for substance use (ACOG, 2008; ACOG, 2017). The Brief Negotiated Interview (BNI) developed by the Boston University School of Public Health is a simple approach designed to help providers effectively explore a person's motivation to change substance use behavior, and elicit action steps: https://www.integration.samhsa.gov/clinical-practice/sbirt/Brief_negotiated_interview_and_active_referral_to_treatment.pdf

Referral for Treatment for Substance Use

When a woman is unable to stop or abstain from drug or alcohol use during pregnancy, referral for further assessment to a provider experienced in the treatment of perinatal substance use should be strongly considered. An important aspect of effective screening and counseling is that is performed in a non-judgmental and non-punitive manner. Substance use disorders are medical conditions, not moral problems. Respectful communication is more likely to facilitate ongoing care.

Brief interventions for tobacco use

Nicotine readily crosses the placenta, and concentrates in fetal blood, amniotic fluid, and breast milk. Concentrations in the fetus can be as much as 15 percent higher than maternal levels (National Institute for Drug Abuse [NIDA], 2012) Growth restriction seen in infants of mothers who smoke reflect a dose-dependent relationship—the more the woman smokes during pregnancy, the greater the reduction of infant birthweight (NIDA, 2012). Tobacco use is associated with greater impact on birthweight than illicit drug use (Bailey, et al 2012).

Among women with opioid use disorders, over 90% smoke (Winklbauer, 2008). Unfortunately, concurrent tobacco and opioid use is associated with earlier onset and increased severity of neonatal abstinence symptoms. However, research shows that treating tobacco use does not have a negative impact on recovery (Reid, et al, 2008), and when smoking cessation interventions are provided during addiction treatment, the likelihood of long term recovery is increased by 25% (Prochaska, 2004.)

Brief intervention strategies for tobacco

Pregnant women who smoke should be asked about their tobacco use at each prenatal visit. Women who are considering quitting should be referred to the tobacco helpline in their home state. The Centers for Disease Control offer a simplified approach ("2As and R") to address smoking during pregnancy: https://www.cdc.gov/tobacco/campaign/tips/partners/health/materials/twyd-5a-2a-tobacco-intervention-pocket-card.pdf

- **ASK** every patient at each encounter about tobacco use and document status
- **ASSIST** every tobacco user to quit with a clear, personalized message about the benefits of quitting
- **REFER** patients who are ready to quit tobacco within the next 30 days to the appropriate Tobacco Helpline

Role of the Obstetrical Care Provider

Maternity care providers can and should play a central role in screening women of childbearing age for substance use and use disorders (ACOG 2008; ACOG 2011; ACOG 2017). Specifically, ACOG encourages providers to contribute to the prevention, identification, and treatment of perinatal substance use by:

- Adhering to safe prescribing practices for all scheduled drugs, with a special emphasis on opioid prescribing
- Incorporating screening, brief intervention and referral to treatment (SBIRT) into routine Ob/Gyn practice
- Encouraging healthy behaviors by providing appropriate information and education.
- Working collaboratively with other members of the healthcare team to assist with counseling, referral and treatment.

- Evaluate at-risk patients for associated medical and social problems such as partner violence, sexually transmitted and injection drug-related infection, and other medical complications of substance abuse such as cardiac and respiratory compromise.
- Be informed about and advise women regarding state and institutional rules for mandated reporting of prenatal substance use.

Unit Structure

Each antepartum care provider and hospital in-patient unit should develop policy and procedures that include universal screening for drug and alcohol use as well as continued tobacco use in pregnancy. Guidelines should include a description of the screening approach used, method for making follow up referrals, and links to resources for support, education, and treatment. Each institution should have a clearly stated policy regarding how the organization complies with state and federal requirements for reporting prenatal substance exposure. Information for patients about state and federal requirements for reporting prenatal substance use should be provided to patients.

Managing Screening Results

Transparency about screening and recommended follow up when screening is positive will foster a relationship of trust. Information regarding positive screening, drug testing, management of results, and institutional policies regarding perinatal substance use should be communicated to the patient privately, and then only to the necessary members of the health care team. Patients should be confidentially counseled about the dissemination of information regarding the results of screening. Each practice and hospital should be able to identify community resources for referral and treatment. A comprehensive guideline for screening pregnant women for substances of abuse has been developed by the Vermont Child Health Improvement Program (Meyer, et al 2008). An example of an antepartum substance use screening protocol is included on the following pages.

Example Protocol: Screening, Brief Intervention, and Referral for Treatment (SBIRT) during Pregnancy

All pregnant women should be screened for drug and alcohol use at the first prenatal visit using a validated instrument and a screening, brief intervention, referral for treatment (SBIRT) framework. This process should be repeated at least once during pregnancy and on admission. The objective of screening and intervention for substance use is to identify that a woman needs help stopping harmful drug or alcohol use, provide support, arrange follow up, and make appropriate referrals when indicated

Screening

- All pregnant women will be notified about the health system's policy on prenatal substance use and tobacco use at first prenatal encounter, as part of their orientation to the practice.

- All pregnant women will be screened while alone (or accompanied by young children only), using [insert name of validated screening instrument]
    - Screening will be done at the first OB visit and in the third trimester
    - Screening will be repeated on admission for delivery
    - Whenever a woman cannot be confidentially screened, screening will be deferred
    - The provider with whom the patient is scheduled will be notified of a positive screen by nursing prior to seeing the patient

Brief intervention

- Pregnant women who screen positive for prenatal drug or alcohol use should meet with an obstetric provider for a brief intervention and discuss follow up.

- The obstetric provider performing the brief intervention will provide information to a woman about and document discussion regarding:
    - Potential harm of identified substance(s) used to the fetus and newborn
    - Discuss specific risks of identified substances used with breastfeeding
    - Explore indication for and acceptance of follow up care, including referral to Behavioral Health or Addiction Medicine specialist
    - Review institutional policy regarding urine toxicology testing during pregnancy and upon admission for labor
    - Review institutional policy regarding collection of urine and/or meconium for drug of abuse screening for the newborn
    - Explain Federal and State requirements for mandated reporting and development of a Safe Plan of Care for newborns identified as affected by maternal substance use
    - Offer referral to case management/social worker if available at institution
    - If indicated refer to the appropriate level of care (see algorithm).

Guidance for Urine Toxicology Testing for Pregnant Women

Toxicology testing in the ambulatory setting

- Disclosure of substance use during current pregnancy *OR* history of substance use within 1 year:
    - Toxicology testing discussed and offered at time of disclosure
    - Testing **strongly** recommended in third trimester in preparation for delivery
- If patient appears intoxicated
- Recommended testing:
    - 13-drug panel including fentanyl (sent out for confirmation unless urgent need to know results in less than 1 week)
    - Ethinyl glucuronide/ethyl sulfate if concern for alcohol abuse within 72 hours

Toxicology testing in the inpatient setting

- Did not receive prenatal care
- Substance use during pregnancy or history of substance use within 1 year, without documented negative urine toxicology in third trimester
- Positive urine drug test in third trimester
- Engaged in treatment for substance use, to document success in program
- Patient appears intoxicated
- Signs of Neonatal Abstinence Syndrome in the newborn
- Admission for premature labor, preterm premature rupture of membranes and concern for abruption
    - Test:
        - Rapid urine with reflex confirmation if positive
        - Add ethyl glucuronide/ethyl sulfate (alcohol metabolites if concern for alcohol use in prior 72 hours

Consent for Drug Testing

Women must give consent prior to their own drug testing with the exception of clinical concern for intoxication. This may be verbal AND must be documented in the record.

- Informed consent must include risks and limitations of the test and the need for confirmatory testing if positive.
- Toxicology testing of the newborn does not require parental consent.

Recommended Performance Measures

- The percentage of patients for whom screening using a validated instrument is documented during pregnancy and upon admission for labor and delivery
- The percentage of patients with positive screens who received a brief intervention and/or referral
- Proportion of patients with urine toxicology testing for whom indication of verbal consent is documented on the clinical record

Appendix 1. Levels of evidence

Studies were reviewed and evaluated for quality according to the method outlined by the U.S. Preventative Services Task Force

I Evidence obtained from at least one properly designed randomized controlled trial.

II–1 Evidence obtained from well–designed controlled trials without randomization.

II–2 Evidence obtained from well–designed cohort or case–control analytic studies, preferably from more than one center or research group.

II–3 Evidence obtained from multiple time series with or without the intervention. Dramatic results in uncontrolled experiments also could be regarded as this type of evidence.

III Opinions of respected authorities, based on clinical experience, descriptive studies, or reports of expert committees.

Based on the highest level of evidence found in the data, recommendations are provided and graded according to the following categories:

Level A—Recommendations are based on good and consistent scientific evidence.

Level B—Recommendations are based on limited or inconsistent scientific evidence.

Level C—Recommendations are based primarily on consensus and expert opinion.

Appendix 2. NIAAA Screening Questions and guidelines

Alcohol and Other Drug Screening Questions
NIAAA Guidelines

1) **On average, how many days per week do you drink alcohol (beer, wine, liquor)?**

2) **On a typical day when you drink, how many drinks do you have?**

   _____ days per week x ____drinks per day = ____drinks per week

   Positive Screen: Above NIAAA Guidelines
   >14 drinks/week for men
   >7 drinks/week for women or men over 65 years
   Any use of alcohol for pregnant women

3) **What is the maximum number of drinks you had in a 2-hour period during the last month?**

   Positive Screen: Above NIAAA Guidelines
   5+ drinks/2hrs for men
   4+ drinks/2hrs for women
   >1 drink/day for adults over 65 years
   Any use of alcohol for pregnant women

4) **How many times in the past year have you used an illegal drug or used a prescription medication for nonmedical reasons?**

Appendix 3. "5 Ps" Prenatal Substance Abuse Screen for Alcohol, Drugs and Tobacco

1. Did any of your **parents** have a problem with using alcohol or drugs?
   __No __Yes __ No response If yes, explain/comments:

2. Do any of your friends (**peers**) have problems with drug or alcohol use?
   __No __Yes __No response If yes, explain/comments:

3. Does your **partner** have a problem with drug or alcohol use?
   __No __Yes __No response If yes, explain/comments:

4. In the **past** have you had difficulty in your life due to alcohol or other drugs, including prescription medications?
   __No __Yes __No response Comment:

5. Present: In the past month, how often did you drink beer, wine, wine cooler or liquor or use any king of drug? (How many times a day, week or month.)
   __ No use __Has used Comment:

6. How much did you **smoke** before you knew you were pregnant?
   ____ packs a day. Comment:

http://www.mhqp.org/guidelines/perinatalPDF/IHRIntegratedScreeningTool.pdf

Appendix 4: AUDIT-C Questionnaire

1. How often did you have a drink containing alcohol in the past year?

- Never (0 points)

If you answered never, score questions 2 and 3 as zero.

- Monthly or less (1 point)
- 2 to 4 times a month (2 points)
- 2 or 3 times per week (3 points)
- 4 or more times a week (4 points)

2. How many drinks did you have on a typical day when you were drinking in the past year?

- 1 or 2 (0 points)
- 3 or 4 (1 point)
- 5 or 6 (2 points)
- 7 to 9 (3 points)
- 10 or more (4 points)

3. How often did you have 6 or more drinks on one occasion in the past year?

- Never (0 points)
- Less than monthly (1 point)
- Monthly (2 points)
- Weekly (3 points)
- Daily or almost daily (4 points)

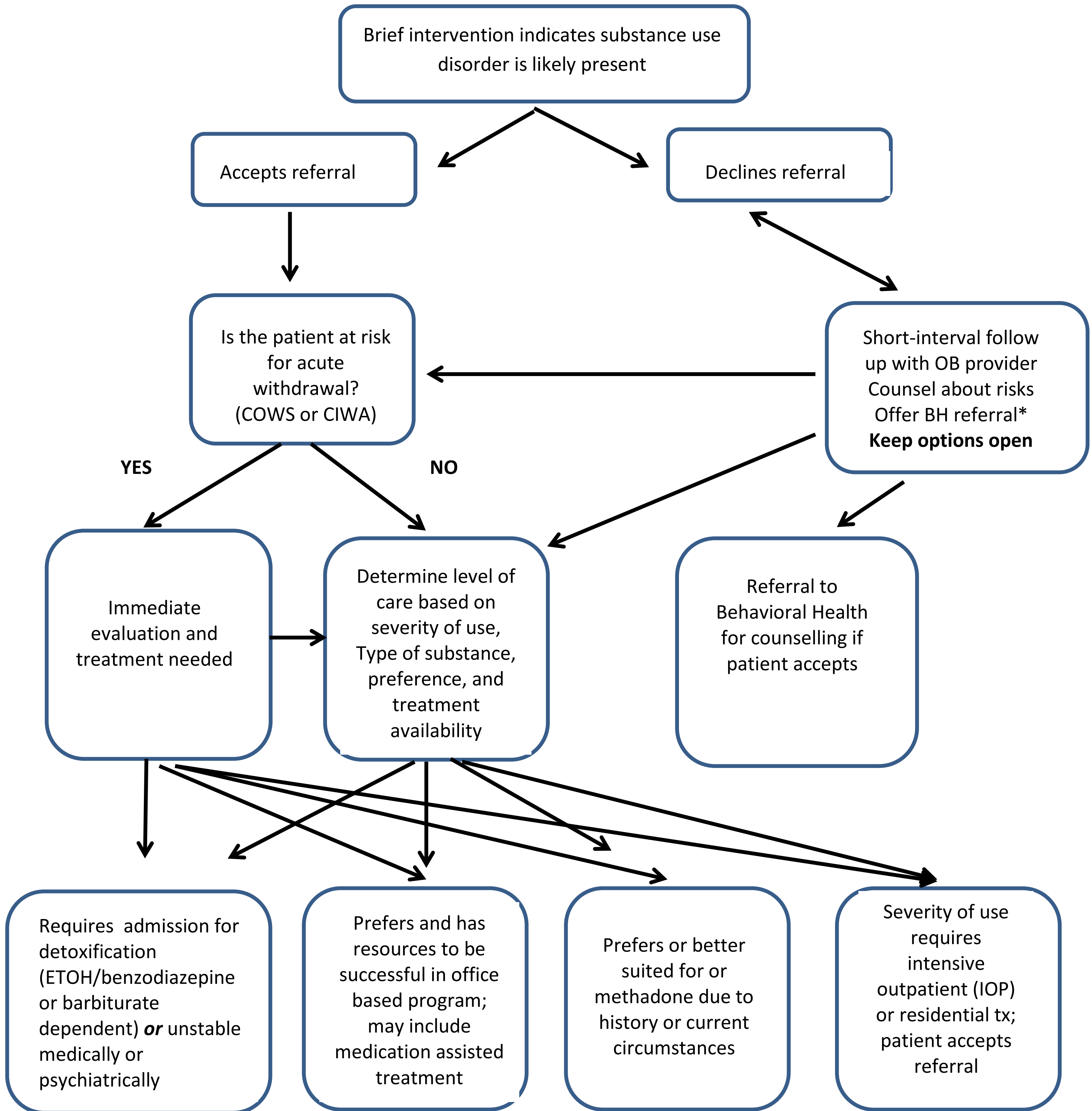
The maximum score is 12. A score of ≥ 4 identifies 86% of men who report drinking above recommended levels or meets criteria for alcohol use disorders. A score of > 2 identifies 84% of women who report hazardous drinking or alcohol use disorders.

Appendix 5. DAST-10 Questionnaire

1. Have you used drugs other than those required for medical reasons?
   - o No
   - o Yes
2. Do you abuse more than one drug at a time?
   - o No
   - o Yes
3. Are you unable to stop using drugs when you want to?
   - o No
   - o Yes
4. Have you ever had blackouts or flashbacks as a result of drug use?
   - o No
   - o Yes
5. Do you ever feel bad or guilty about your drug use?
   - o No
   - o Yes
6. Does your spouse (or parents) ever complain about your involvement with drugs?
   - o No
   - o Yes
7. Have you neglected your family because of your use of drugs?
   - o No
   - o Yes
8. Have you engaged in illegal activities in order to obtain drugs?
   - o No
   - o Yes
9. Have you ever experienced withdrawal symptoms (felt sick) when you stopped taking drugs?
   - o No
   - o Yes
10. Have you had medical problems as a result of your drug use (e.g. memory loss, hepatitis, convulsions, bleeding)?
   - o No
   - o Yes

(Skinner, Harvey A. and the Center for Addiction and Mental Health, Toronto Canada)

Appendix 6. Decision tree for determining appropriate level of care



(BH= Behavioral Health clinician; COWS= Clinical Opioid Withdrawal Scale; CIWA= Clinical Institute Withdrawal Scale for Alcohol)

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