**Alcohol, smoking, and other substance use in the perinatal period**

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**What you need to know**

- Ask about substance use in all women who are pregnant or planning pregnancy
- Early brief interventions may be effective when delivered by non-specialists in primary care
- Support for women who use substances during pregnancy may involve liaison with other services such as midwifery and specialist drug and alcohol services

**Case scenario**

A 30 year old primiparous woman is delighted to find herself pregnant and comes to your surgery for confirmation of the pregnancy. You discover that she is smoking 20 cigarettes a day, and she is worried that she went to a friend’s wedding around the time of conception and drank so much that she couldn’t remember what had happened until the next day. She also reports occasional recreational use of cannabis.

**Next steps**

Advise her of the risks of smoking and of alcohol and cannabis use during pregnancy. The biggest risk for her pregnancy at present is her smoking.

Offer referral to a specialist pregnancy smoking cessation clinic.

Clarify with her how much cannabis and alcohol she is using. Brief intervention may be sufficient, but regular or heavy use of either substance may warrant referral to specialist drug and alcohol services.

**What is your understanding of the impact of the substances you are using?**

**Would you like to breastfeed?**

**Box 1: Questions to consider asking about substance use during pregnancy or in women planning a pregnancy**

- Ask permission—“Is it OK if I ask you some questions about substance use that can affect pregnancy?”
- Use third person—“Health professionals are encouraged to ask all women in pregnancy about substance use. Is it OK if we explore this?”
- Assess types and amounts of substances—“What are you taking? How do you use it and how often? Are you using anything else? How much are you spending?”
- “Is your partner or anybody else in the family also using substances?”
- “What is your understanding of the impact of the substance use on you and your baby during pregnancy?”
- “Are you booked with maternity services and receiving antenatal care?”
- “Have you been referred to any other services such as a specialist addictions service? What are those services currently providing?”
- “Who is supporting you during pregnancy and after birth?”
- “Would you like to breastfeed?”

**Exploring substance use in pregnancy**

The World Health Organization recommend healthcare providers ask all pregnant women about substance use (past and present) as early as possible in pregnancy and at every antenatal visit. When asked about substance use, a woman may feel unable to disclose this as she may feel judged or worry that her parenting ability will be questioned. Such inquiry is therefore best done by a professional who the woman trusts and with whom she has established a rapport, preferably in the preconception period.9 Box 1 lists suggestions for what to ask in the consultation, such as type and quantity of substances used and impact on daily life, which is important to consider when evaluating risk.
Managing substance use in pregnancy

Develop and agree a management plan in collaboration with the woman, based on a risk-benefit discussion informed by up-to-date evidence. The plan will differ with the type and level of substances used and local availability of services.

**Brief interventions**

Offer brief interventions early in pregnancy for women seeking to reduce or stop their substance use. Brief interventions are short, structured interventions to encourage behaviour change. Box 2 suggests questions you might ask. These include asking about current level of use and discussion with the woman about the potential risks of substance use and support available.

**Box 2: Questions to ask in a brief intervention**

- “What is your understanding of how the substances that you are using may affect your pregnancy and baby?”
  - This may be followed by giving information about risks in an empathetic and non-judgmental way
- “Have you thought about cutting down?”
  - This may be followed with discussion about perceived barriers to stopping or reducing substance use
- “Would you like more information about how we can support you with cutting down?”
  - This may be followed by further information about options for support, with an emphasis on individual responsibility for decision making
- Always end by instilling hope that the woman is capable of change

There is moderate quality evidence that brief intervention in primary care can reduce harmful or hazardous alcohol consumption by around a pint of beer (475 mL) or a third of a bottle of wine (250 mL) each week. There is evidence for the effectiveness of interventions as brief as providing a patient information leaflet. However, there is less evidence to support the use of brief interventions for other substances and limited understanding of how this may translate to women in pregnancy.

**Follow-up**

After brief intervention, further contact with the woman may be required. This provides an opportunity to develop a relationship and further explore substance use. It is also allows women who are initially ambivalent about change to consider the information that you have given them at the initial contact, although it is also important to emphasise the importance of stopping or reducing use as early in pregnancy as possible. Liaise with midwifery, who can also help in signposting to services such as smoking cessation and who sometimes have a specialist midwife for substance misuse. Refer to local substance use services if more extended psychological interventions are required. Women who may benefit from referral to specialist drug and alcohol services are those who are dependent on substances such as alcohol and opioids (see box 3 for ICD criteria), who require substitute prescribing, or who have complex comorbidities. These women may also benefit from perinatal psychiatry services if they are available.

**Box 3: ICD-11 criteria for dependence**

For any substance, three or more of the following should have been present together at some time during the previous year:

- Strong desire or compulsion to take the substance
- Difficulty in controlling substance-taking behaviour, such as onset, termination, or levels of use
- Physiological withdrawal state when substance use is stopped or reduced (symptoms vary depending on the substance); may also be associated with use of the substance (or a closely related one) to relieve or avoid the withdrawal symptoms
- Tolerance, whereby increased doses of the substance are required to achieve effects originally produced by lower doses
- Neglect of alternative pleasures or interests other than the substance
- Persistence of substance use despite knowledge of its potential harms

UK Department of Health guidelines encourage breastfeeding, even in women who continue to misuse substances, except in those using cocaine or crack cocaine or high doses of benzodiazepines. Aim to discuss breastfeeding intentions as early in pregnancy as possible, individualising the risk-benefit discussion to the specific substance use profile.

**Alcohol**

There is no known safe alcohol consumption level in pregnancy, so a conversation with a woman who is worried that she has drunk alcohol in early pregnancy can be challenging. Heavy drinking and binge drinking (28 units for men or 26 units for women on one occasion) in pregnancy is associated with an increased risk of prematurity and low birth weight and adverse outcomes is less clear. Nonetheless, current advice from the Australian departments of health and the US centres for Disease Control and Prevention (CDC) is to abstain completely from alcohol in pregnancy.

Support pregnant women using alcohol to stop (ideally) or reduce their alcohol consumption. There are several screening tools for use in the non-pregnant population, such as the three question AUDIT-C, although there is limited evidence for its validity during pregnancy. For women dependent on alcohol, refer to a service that can support early detoxification, ideally as an inpatient, with chlordiazepoxide as per usual protocol. Advise against stopping drinking suddenly because of the risk of life-threatening complications of alcohol withdrawal such as seizures. There are insufficient data on safety to support use of relapse prevention medication such as acamprosate, disulfiram, and naltrexone in pregnancy. However, risks of relapse versus maintaining abstinence need to be weighed for each woman.

**Tobacco**

Smoking during pregnancy is associated with a range of adverse offspring outcomes, including reduced fetal growth. It is also associated with an increased risk of miscarriage, prematurity, placental abruption, and stillbirth. Provide information about the magnitude of the risk: in 2018 there were four stillbirths per total 1000 births in England and Wales. Risk of stillbirth is estimated to increase by 47% in women who smoke during pregnancy increasing the baseline risk to almost six in 1000. A dose-response...
relates to the development of the foetus. Other effects include:

- Increased risk of preterm birth.
- Increased risk of low birth weight.
- Increased risk of neonatal death.
- Increased risk of respiratory distress syndrome.

In the perinatal period, the use of cannabis can lead to:

- Neonatal abstinence syndrome.
- Neonatal withdrawal symptoms.
- Neonatal respiratory distress.

Other risks include:

- Increased risk of stillbirth.
- Increased risk of congenital anomalies.

The use of cannabis during pregnancy is associated with:

- Increased risk of low birth weight.
- Increased risk of preterm birth.
- Increased risk of neonatal death.

In summary, the use of cannabis during pregnancy is associated with increased risks for both the mother and the foetus. It is important to counsel pregnant women about the risks of cannabis use and to offer appropriate interventions to help them stop or reduce their use.
Stimulants in the perinatal period: key facts

- Stimulants such as cocaine, amphetamines, and mephedrone are all potent vasoconstrictors that can affect the developing fetus at any gestation, leading to the obstetric complications of placental abruption and premature rupture of membranes and a potentially increased risk for congenital anomalies, low birth weight, and preterm birth.54 55 Advise women using stimulants of these risks and encourage them to stop completely.
- A neonatal withdrawal syndrome has been reported in some infants involving symptoms such as vomiting and restlessness.56
- Consider inpatient care in the management of stimulant withdrawal during pregnancy. There are currently no clinically effective substitute or relapse prevention medications to treat stimulant dependence, making psychosocial interventions the mainstay of treatment.
- Women using stimulants should be advised not to breastfeed.7

Further educational resources

- Royal College of Paediatrics and Child Health. Safeguarding—learning resources. https://www.rcpch.ac.uk/resources/safeguarding-learning-resources
- NCST. Smoking cessation: a briefing for midwifery staff. https://www.ncsct.co.uk/usr/pub/Midwifery_briefing_%20V3.pdf
- Smokefree Action Coalition. E-cigarettes in pregnancy. https://smokefreeaction.org.uk/wp-content/uploads/2019/09/ASH-ecig-infographic-A5_v6.pdf.
  - A patient infographic on E-cigarettes in pregnancy
- Royal College of Obstetricians and Gynaecologists. Alcohol and pregnancy. https://www.rcog.org.uk/en/patients/patient-leaflets/alcohol-and-pregnancy/.
  - A patient information leaflet

Current guidelines

- UK Department of Health. Drug misuse and dependence: UK guidelines on clinical management. 2017. https://www.gov.uk/government/publications/drug-misuse-and-dependence-uk-guidelines-on-clinical-management
- British Association for Psychopharmacology. Consensus guidance on the use of psychotropic medication preconception, in pregnancy and postpartum 2017. https://www.bap.org.uk/pdfs/BAP_Guidelines-Perinatal.pdf
- World Health Organization. Guidelines for the identification and management of substance use and substance use disorders in pregnancy. 2014. https://www.who.int/substance Abuse/publications/pregnancy_guidelines/en/
- British Association for Psychopharmacology. Evidence-based guidelines for the pharmacological management of substance abuse, harmful use, addiction and comorbidity. 2012. https://www.bap.org.uk/pdfs/BAP_Guidelines-Addiction.pdf
- UK National Institute for Health and Care Excellence (NICE). Antenatal and postnatal mental health: clinical management and service guidance (clinical guideline CG192). 2018. https://www.nice.org.uk/guidance/cg192
- NICE. Pregnancy and complex social factors: a model for service provision for pregnant women with complex social factors (clinical guideline CG110). 2010. https://www.nice.org.uk/Guidance/cg110
- NICE. Smoking: stopping in pregnancy and after childbirth (public health guideline PH26). 2010. https://www.nice.org.uk/guidance/PH26

How patients were involved in the creation of this article

One of the article’s authors, CK, has lived experience of the topic. She was consulted throughout the article’s production, including its conceptualisation and during the writing process, when she stressed the importance of asking all women about their substance use during pregnancy. She also emphasised the value of professionals discussing referrals to children’s social care with the woman before the referral being made.

Education into practice

- How do you ask women attending your practice to report their pregnancy about their substance use?
- What training has your practice nurse received on giving smoking cessation advice to pregnant women?
- How many pregnant women attending your practice are smokers, and what proportion have been offered smoking cessation advice?

Contributors: CAW conceived the project and consulted with EF, CK, and JS in devising the scope. CAW drafted the initial manuscript, and EF, CK, and JS provided review and editing of the final version.

Competing interests: We have read and understood BMJ policy on declaration of interests and have no relevant interests to declare.

Patient consent not required (patient anonymised, dead, or hypothetical)

Provenance and peer review: Commissioned, based on an idea from the author; externally peer reviewed.

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