

Can routine screening for alcohol consumption in pregnancy be ethically and legally justified?

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ABSTRACT

In the UK, it has been proposed that alongside the current advice to abstain from alcohol completely in pregnancy, there should be increased screening of pregnant women for alcohol consumption in order to prevent instances of fetal alcohol spectrum disorder. The Scottish Intercollegiate Guidelines Network published guidelines in 2019 recommending that standardised screening questionnaires and associated use of biomarkers should be considered to identify alcohol exposure in pregnancy. This was followed in 2020 by the National Institute for Health and Care Excellence Draft Quality Standard, which recommended that pregnant women should have information on their alcohol consumption recorded throughout their pregnancy and this information transferred to the child's health records. Most recently, Public Health England has stated that the alcohol intake of all women should be recorded throughout pregnancy, not just at the initial booking appointment and that tools such as blood biomarkers and meconium testing should be researched in order to determine true prevalence rates of alcohol in pregnancy. We argue that this proposed enhanced screening undermines women's autonomy and their legal right to be sufficiently informed to consent to screening. We argue that there is no evidence that this kind of screening will result in a reduction of fetal harm and there is a danger that undermining the autonomy of women and the trust relationship between women and healthcare professionals may even increase harm to future children.

INTRODUCTION

Concerns have been raised about the effects of alcohol consumption in pregnancy since the 1970s. In more recent years, the publication of studies that show correlation between alcohol exposure and low IQ^{1 2} has resulted in a proliferation of media coverage³ sending the message that 'Even moderate drinking during pregnancy can affect a child's IQ.'^{4 5} In the last few years, it has been reported⁶ that the prevalence of fetal alcohol spectrum disorders (FASD) in the UK is significantly underestimated and there have been calls for urgent action to clarify and address this.

While the evidence regarding light or moderate drinking is not nearly as clear as the headlines might have us believe, there is evidence that *heavy* alcohol consumption in pregnancy can lead to miscarriage and FASD⁷ (a spectrum of conditions including growth issues, distinctive facial features and learning difficulties).⁸ As a result, a so-called 'precautionary approach'⁹ has been adopted 'clarifying' the advice

to women¹ before conception and during pregnancy to abstain from alcohol all together.¹⁰⁻¹²

This 'abstinence only approach' now forms the basis for all policies on alcohol consumption in pregnancy in the UK and is increasingly linked to recommendations for monitoring women during pregnancy.¹³⁻¹⁵ Guidance on addressing alcohol consumption during pregnancy in England and Wales is currently in draft form and is expected to be finalised in the next year.¹⁴ Although pregnant women are currently routinely asked by their midwives about their alcohol intake at the initial booking appointment, it is proposed that this should be increased to all women being screened using standard questionnaires at *every* antenatal appointment. In addition, there is an evident appetite for the development of biomarker screening tools, testing blood, urine and even meconium to establish if a pregnancy is 'alcohol exposed'.^{16 17} The Scottish Intercollegiate Guidelines Network (SIGN) published guidelines in 2019 recommending that standardised screening questionnaires and associated use of biomarkers should be considered to identify alcohol exposure in pregnancy.¹⁷ This was followed in 2020 by the National Institute for Health and Care Excellence Draft Quality Standard, which recommended that pregnant women should have information on their alcohol consumption recorded throughout their pregnancy and this information transferred to the child's health records.¹⁸ Most recently, Public Health England (PHE) has stated that the alcohol intake of all women should be recorded throughout pregnancy, not just at the initial booking appointment¹⁹ and that tools such as blood biomarkers and meconium testing should be researched in order to determine true prevalence rates of alcohol in pregnancy.¹⁹ The intention is to identify women who do not currently reveal their alcohol consumption to their healthcare professionals including those who have consumed even a small amount of alcohol during pregnancy, rather than only heavy drinkers. The reason that biomarker screening has not yet been introduced as part of this screening policy is because currently available tests are not sensitive enough to accurately detect low and moderate alcohol consumption in pregnancy.

In this paper, we examine this proposed approach to screening for alcohol consumption in pregnancy and ask 'Can this kind of routine screening for alcohol use in pregnancy be ethically and legally

¹While we do refer to pregnant 'women' throughout this paper, we recognise that it is important to acknowledge that not all pregnant people identify as women.



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justified?'. Routine screening in pregnancy is usually justified based on either prevention of fetal harm or on empowering women with information to make more informed choices about their lives, or both. We argue that this move towards systematic and extensive routine screening of this population cannot be justified on either of these bases. First, we argue that it is unlikely that this approach will achieve the public health and social aims that are the goals of this policy and may well be counterproductive, resulting in more fetal harm. Second, we argue that unlike other screening policies that may arguably be justified in order to empower women with information about their pregnancy, screening for alcohol consumption will not result in women being better informed than they already were because the information gained about individual alcohol consumption is information these women already have, and the information given to women on which this policy is based is inconclusive and often contradictory.

ALCOHOL SCREENING AND CONSENT ISSUES

It is a central ethical and legal principle in modern healthcare that we should respect the autonomy of individuals accessing healthcare. This is seen as important to allow individuals control over their own lives and their own bodies, to avoid the medical paternalism of the past and develop a relationship of trust between healthcare professional and patient. As a result, all those able to make a sufficiently autonomous, informed choice have the right, under law, to make an uncoerced decision about whether they wish to provide any information or have any treatment or tests. In order to enable this kind of voluntary, informed consent, we usually require that balanced information is given to patients in a non-directive way to foster a society where individuals are able to make the choices that they believe are the right ones for themselves.

An obvious exception to this rule is where there is strong evidence that providing treatment will prevent serious harm to others, for example, mandatory treatment or quarantine for serious infectious disease. Here, it is argued that overriding individual autonomy is justified in these cases to protect the interests of others from serious harm.

However, there is a slightly less obvious exception to this rule of voluntary, informed consent for testing and treatment. This example is any routine programme, for example, for screening or vaccination. Here, instead of an intervention as an option that individuals can opt-in for, this intervention is introduced as a routine part of care with an inherent expectation that this intervention will be accepted. There is usually the option of refusing these interventions, but the routine nature of this offer arguably changes the usual non-directive nature of consent as making this part of routine care sends a message that this intervention is encouraged or recommended.²⁰ The fundamental aim of making an intervention routine is to improve the uptake of these interventions to encourage the participation of not only those who would have elected to be tested or vaccinated but also those who may not have chosen this option if it was offered in the usual, non-directive, opt-in way that other tests and treatments are usually offered in.

This is the rationale behind all routine vaccination programmes and routine screening programmes for serious and treatable conditions such as breast, cervical and bowel cancer. There are, of course, a number of established routine screening programmes in pregnancy. Some of these screening programmes aim to protect the welfare of the resulting child by preventing HIV infection, or treating syphilis or other preventable or treatable conditions.

Other screening programmes aim to empower women with information that it is thought will be useful to them in order to make informed decisions about their pregnancies, eg, screening for Down's syndrome. While these screening programmes are not without controversy,²¹ the justification here is that this deviation from the 'gold standard' of non-directive informed consent for treatment is justified in order to either prevent harm to future children or to give women information that they may find important when making choices about their pregnancies.

We argue that this proposal for extensive screening for alcohol use raises these challenges to respect for autonomy in the same way as other routine screening programmes and also has some additional features that intensify these challenges, which we will come to later.

JUSTIFICATION FOR ROUTINE ALCOHOL SCREENING

The rationale for this proposed routine and regular screening of pregnant women for alcohol consumption is to increase the information that healthcare professionals have regarding how much pregnant women are drinking before and throughout their pregnancies. Information about alcohol intake is patchy with alcohol usage only being recorded for 60% of women at the initial booking appointment.²² It is argued that this increased information about alcohol consumption will be helpful for two main reasons. First, it is claimed that this systematic and routine screening approach 'supports the drive to improve wellbeing, reduce risk and tackle inequalities...and ensure every woman is fit for and during pregnancy and supported to give children the best start in life'.²³ Second, it is argued that keeping a record of the alcohol consumption of these women, even if this is moderate, will help to later diagnose FASD in any resulting children.^{14 24} Thus, the justification here for this deviation from the usual approach to respect for autonomy is based on an attempt to enhance the well-being of pregnant women and the children they bring to birth and to further enable accurate diagnosis and support of children affected by alcohol consumption in pregnancy. While these are, of course, laudable aims, if a strong case is to be made to justify this intervention based on these aims, then evidence needs to be available to convince that undermining the autonomy of women in this way is likely to have the public health and welfare gains that are sought.

Harm prevention?

Underlying the argument that the welfare of future children justifies the interference with women's autonomy is the assumption that the policy will maximise the welfare of future children by preventing harm to them. If evidence does exist that screening for alcohol use in pregnancy is likely to prevent serious harm to future children then this may provide a justification for this routine screening.

What is the evidence here?

The guidance of the UK Chief Medical Officers (CMOs) that forms the basis of the approach of PHE adopts an abstinence only approach.²⁵ The rationale for this approach is that the evidence on issue this is complex particularly when it comes to light or moderate drinking, where evidence is at best inconclusive and at worst contradictory with some studies, indicating that light and moderate drinking could be associated with better outcomes than abstinence.² It is thought that providing the detail of this information may be confusing to women and, thus, in order to prevent fetal harm (from heavy drinking), the conclusion arrived at is to remove this uncertainty and to advocate abstinence.²⁶

Given this lack of evidence of correlation between light and moderate drinking and fetal harm, if undermining women's autonomy is to be justified on the grounds that it is necessary in order to prevent harm to future children, it would be logical for the intervention to be targeted at the pregnancies most at risk of harm. However, the policy is not directed at those women who are believed to be drinking heavily during pregnancy, but at *all* women even though it is thought that only around 2.9% of pregnant women drink more than one alcohol unit a week.²⁷ Nor is the policy aimed at detecting high levels of alcohol consumption, but *any* level of alcohol exposure, despite the lack of evidence that low to moderate alcohol consumption is harmful. Therefore, we argue that this policy cannot be justified as a proportionate interference with women's autonomy in order to prevent harm to future children.

Better diagnosis of FASD?

It is also claimed that this policy will improve the welfare of future children because it will assist with the diagnosis of FASD.¹³ The hope here is that this, often difficult to diagnose, condition might be more easily identified with the use of information about the alcohol use of the child's mother. However, it appears that while evidence that the child's mother consumed alcohol during pregnancy might assist in linking these conditions to the mother's behaviour, it is not necessary in order to diagnose the conditions themselves and determine the appropriate treatment and support.²⁸ In fact, the SIGN 156 document itself notes concerns that there was '...no evidence identified which directly links a maternal history that has involved alcohol use to improved rates of diagnosis and better outcomes for a woman or her children'.²⁹ Despite this, the same document recommends that routine screening be intensified with the use of biomarkers in addition to screening questionnaires.²⁹

The use of routine biomarker analysis?

There is little evidence to suggest that the inclusion of biomarker analysis will lead to a more accurate record of maternal alcohol consumption. The PHE document draws on a 2018 study that compared the prevalence of alcohol consumption in the first trimester of pregnancy revealed by self-reporting and blood biomarker analysis.³⁰ This study concluded that the prevalence of alcohol consumption estimated from blood biomarker analysis did not significantly differ from that revealed by self-reporting. Similarly, the SIGN 156 document notes that testing of meconium and placental tissues shows the greatest promise as blood biomarkers have been shown to be of limited use in screening for low and moderate alcohol consumption in pregnancy compared with self-reporting.³¹ If biomarker analysis is no better than self-reporting, what is the justification for using it? Meconium and placental tissue testing might be more accurate in revealing low and moderate alcohol consumption, but this would not be justified for two reasons. First, given the lack of evidence that low to moderate level alcohol consumption during pregnancy is likely to harm the future child, it is not clear what testing for this level of consumption would achieve. Second, testing of meconium and placental tissues is retrospective and cannot be used to identify women who might benefit from specialist support services to reduce their alcohol consumption during pregnancy and so could only be of use in making a retrospective link between the child's conditions and the mother's alcohol intake during pregnancy. A policy of routine screening using blood biomarker analysis or meconium and placental tissue testing would be even more of an infringement on women's autonomy than routine alcohol questionnaires, given the physically invasive nature of this screening.

The absence of evidence that these measures would improve the welfare of either the resulting child or the woman means that justification for this infringement is lacking.³²

Counter productive?

Not only is there no evidence that the use of routine questionnaires and blood biomarkers would be likely to improve the welfare of children born, but there are also concerns that this more extensive investigation of alcohol use in pregnancy might actually prove harmful to the welfare of these future children. The pregnancies that are most at risk from harm associated with alcohol consumption are those where women are drinking heavily throughout their pregnancies. Given that these women are already reluctant to disclose their alcohol consumption to their healthcare team,³³ most likely through fear of judgement and even of having their children removed from their care, it seems unlikely that a routine questionnaires and biomarker blood tests implemented to identify even low levels of alcohol will encourage these women to engage with antenatal care. This added level of surveillance and the distrust inherent in it has the potential to cause the women who would benefit most from good, supportive antenatal care, to disengage from that care, leading to far worse outcomes for them and their future children.³⁴ The SIGN 156 document states that 'no evidence was identified to suggest that asking about alcohol history had a detrimental effect on attendance for care',¹⁷ but this could easily change with the increased pressure of being asked at every antenatal appointment, having this recorded on the woman's (and potentially the child's) health records and the use of biomarker screening. In addition, the proposed use of meconium and placental tissue testing might conceivably lead to women choosing to conceal births in fear of such testing revealing that they have consumed alcohol during pregnancy and the very real possibility that this could be used in care proceedings to remove the child from the mother's care.³⁵

The SIGN 156 document notes that some members of the development group reported that in their experience screening tools do not necessarily ensure that alcohol consumption is discussed effectively and that other issues such as experiences of violence and abuse need to be discussed.¹⁷ Indeed, it states that 'To enable health behaviour change, including reduction in alcohol consumption during pregnancy, supportive relationships between patients and caregivers are key'.¹⁷ Despite the potential benefits, no recommendations are made relating to enhancing this supportive relationship and encouraging wider discussions of other issues in the woman's life. Instead, it is recommended that use of biomarkers alongside screening questionnaires should be considered.¹⁷

FURTHER CHALLENGES TO RESPECTING WOMEN'S AUTONOMY

In the face of this evidence, however, those proposing this change of approach may still insist that the *chance* that we might prevent fetal harm in this very small minority of pregnant women who do drink heavily is enough to justify, what they would argue is a minor infringement of autonomy. However, we argue that the infringement of autonomy is not inconsiderable.

While it is true that women can refuse to provide information and refuse to consent to blood biomarker testing, arguing that this ability to refuse makes this screening voluntary seems a stretch. If you are still doubting this consider the information that women will be given as part of the consent process to this screening. Accurate information is a prerequisite of voluntary informed consent. This screening is presented as necessary on

the basis that total abstinence is the only safe approach during pregnancy. However, as we have seen, evidence linking light or moderate drinking to fetal harm is not available and this approach is taken on the basis that women might be confused by an accurate account of the risks involved.^{17 25 36} This ‘simplification’ of the evidence calls into question whether participation in such screening can be considered to be voluntary and informed.

This approach misrepresents the evidence behind this request for engagement with screening and presents the evidence in a way that we argue is unjustifiably directive to the point of coercion. In the face of this version of the evidence, midwives may even feel it is their duty to persuade women to participate in screening adding to directiveness of this interaction. This is, of course, not only ethically challenging but also potentially legally problematic in that not providing accurate and clear information when asking a patient to consent to screening may well render the consent given legally invalid.

Finally, it is important to recognise that this type of screening is very different from other routine screening programmes in that the participation in screening cannot be justified in order to empower those screened with information. This is for the simple reason that the participants already know the information that is being screened for. Women are already aware of the amount they are using alcohol. What could empower women is to be provided with accurate information of the risk of alcohol consumption in an environment where they feel able to discuss this issue freely. However, the proposed screening does not provide this.

CONCLUSION

In this paper, we have argued that proposals to enhance routine screening of all pregnant women for alcohol consumption using regular questionnaires and blood biomarkers are problematic, not only ethically and legally but also when we consider the public health aims these screening programmes aim to address. We have argued that ‘simplifying’ the complexity of the evidence when it comes to FASD undermines women’s autonomy and their legal rights to be sufficiently informed to consent to screening. We have also argued that this proposed routine screening cannot be justified by appealing to the harm that is prevented to the fetus or the woman as the evidence just does not back this up. As a result, such proposals are not only ethically and legally problematic but also likely to be at best ineffective, and at worst counterproductive as a result of undermining the trust relationship between women and healthcare professionals.

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