Guideline Objectives
The objective of the guideline is to provide excellent care to women and their babies, with the overall aim of reducing maternal and neonatal morbidity and mortality associated with substance misuse in pregnancy.

The guideline is designed to clarify information about:

- The implications of substance misuse in pregnancy, both for mother and baby
- The kind of support available to women and their families
- The appropriate referral criteria and care pathways for these mothers and their babies
- Discharge planning for both mothers and babies

Guideline Readership
This guideline applies to all women booking within the Heart of England Foundation Trust, attending clinicians; obstetricians, sonographers, midwives and specialist midwives. All care is tailored to individual patient needs, with an in-depth discussion of the intended risks and benefits of either undergoing the procedure or declining intervention.

Other Guidance
- National Institute clinical Excellence (NICE 2007) Treatment for drug misuse

Refer to full reference listing in guideline for further reading.
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1. **FLOW CHARTS**

**Antenatal Pathway – relevant to gestation age**

<table>
<thead>
<tr>
<th>Gestation</th>
<th>Actions</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>At first disclosure</td>
<td>- Liaise with Lead midwife for Substance Misuse at appropriate site.</td>
<td>Early access to antenatal care</td>
</tr>
</tbody>
</table>
| Booking | - Determine exactly what substances are being used and in what quantities  
- Booking blood tests (Blood group and antibodies), FBC, U&E, LFT, non-fasting serum glucose, HIV, Hepatitis B & C, Rubella, Syphilis)  
- Discuss serum screening for Down’s syndrome  
- Dating scan  
- Liaise with Drug Workers  
- Notify Specialist Midwife for Substance Misuse  
- Multi-professional discussion re social care and health referral (see later)  
- Complete a Neonatal Alert Form/HV Liaison Form  
- Plan subsequent antenatal visits with lead midwife  
- Refer to Fetal Medicine for detailed ultrasound scan depending on drug | Screen for major infections affecting antenatal care and pregnancy. Allows neonate to be immunised against Hep B. |
| 20 weeks | - Mid trimester anomaly scan/detailed ultrasound scan if required  
- Discussion with Social Care and Health if appropriate and community midwife and Health Visitor  
- Consider Interagency Agency Referral to Social Care and Health | Major anomalies |
| 28 weeks | - Growth scan  
- Repeat NBS bloods, FBC, non-fasting serum glucose | To detect FGR |
| 32-36 weeks | - Growth scan 32 and 36 weeks  
- Ensure Pre-birth plan for baby is in place, if appropriate  
- Review need for Social Care and Health involvement if appropriate  
- Alert on Maternity information system  
- Ensure Neonatal Alert Form (BHH)/ Paediatric Alert form (GHH) has been completed | To facilitate joined up care |
| 34 weeks | - Growth scan for cannabis users  
- Consider arranging visit to NNU by parents  
- Alert on Maternity Information System | To detect FGR  
To facilitate joined up care |
| 41 weeks | - Induction of labour for Obstetric reasons | |
SUBSTANCE MISUSE SCREENING
FLOW CHART FOR USING DURING ANTENATAL PERIOD

Urine sample to be sent for substances of misuse screen with consent (Random appointments)

If woman declines document clearly and inform specialist midwife for substance misuse
GHH - 49344  BHH - 40356

If woman consents send sample in white topped bottle in clinical chemistry bag. Document clearly that sample has been sent and inform specialist midwife on GHH 49344 BHH 40356 Request drug misuse screen and document what drugs disclosed

Woman should be asked again at next visit if she will consent to a substance misuse screen

Results usually available within 24 hours Mon – Fri on ICE

Positive result
Contact Specialist Midwife GHH 49344 BHH 4035 Mon – Fri 9 -5
Document clearly and print result from Maternity Information System
Do social service referral if not already involved

Negative result
Document clearly and print result from Maternity Information System and file in medical records

If concern raised do social service referral
When a woman is admitted in labour obtain urine sample for substance misuse screening

Urine bag to be placed on baby ASAP following delivery

Mother and baby use white top bottle minimum 1ml – specimen can be contaminated by small amount of meconium

Clinical chemistry bag request substances of misuse confirmation

Ensure documented in mother’s and baby’s medical records

All babies must remain as inpatients until result is obtained – results will be available 24 hours - Monday - Friday

Positive results

Document clearly contact specialist midwife

All positive results should be reviewed by 2nd on call consultant neonatologist or their team

If social care and health are not involved

A discharge planning meeting will be needed attended by midwife neonatologist, obstetric team and social care

If no other safeguarding concerns mother and baby to be discharged to planned place of discharge

Document clearly negative result

If safeguarding concerns
2. Executive Overview / Introduction

Parental problem drug use can and does cause serious harm to children from conception to adulthood. Reducing the harm to babies from problem drug abuse [during pregnancy] should be a main objective of practice. Effective treatment of the mother can have major benefits for the baby, and requires a coordinated approach from the multidisciplinary team caring for mothers and their babies. These key recommendations were published in a document entitled “Hidden Harm” produced for the Department of Health by the Advisory Council on the Misuse of Drugs (2003).

Over the last 25 years the number of people misusing drugs has increased dramatically so that no part of the country is spared. The same is true of numbers of babies born to mothers who misuse drugs. Additionally problem drinking, particularly in young women has increased in prevalence in the last decade (Public Health England 2013).

Drug and alcohol misuse is a factor in a significant number of children in need and child protection cases, and drug and alcohol misuse is a factor in at least 33% of child protection cases, and drug and alcohol misuses is a factor in up to 70% of care proceeding. Parental substance misuse has been found to feature in 25% of serious case reviews (Munro 2011).

Families are a key priority for the government and for Public Health England (PHE). The recent spending review announced an extra £200 million to extend the Troubled Families programme and change the way that local authorities, health, education and criminal justice services work together to run around the lives of a further 400,000 vulnerable families.

Problem drug use in the United Kingdom (UK) is characterised by the use of multiple drugs, often by injection, and is strongly linked to social deprivation. This often results in a typically chaotic and unpredictable lifestyle, often resulting in chronic poor maternal health and precarious domestic conditions (DfE 2013) (Ofsted 2013).

Maternal drug use in pregnancy can seriously affect fetal growth, but when multiple drugs are being taken against a background of other adverse social conditions, poor nutrition, smoking and alcohol use, fetal outcome can be very poor. Many drugs (opiates, benzodiazepines) can cause severe neonatal withdrawal symptoms. In addition, maternal drug injecting carries the risk of mother-to-child transmission of HIV and viral hepatitis (B & C). After birth, the baby may be exposed to many hazards as a result of sustained parental drug use, and it is essential that a robust plan of social care is in place prior to the baby being discharged (National Institute on Drug Abuse 2011).

A further key recommendation of the Advisory Council on the Misuse of Drugs (2003) is that “problem drug or alcohol use by pregnant women should be routinely recorded at the antenatal clinic in a way that respects privacy and confidentiality but both enables accurate assessment of the individual (or family)”. Every maternity unit should provide a service that is accessible to and non-judgemental of pregnant problem drug users, and should be able to offer high quality care aimed at minimising the impact of the mother’s drug use on the pregnancy and the baby.
3 Body of the Guideline

Antenatal Care

Booking
All mothers at booking should be asked routinely and sensitively about all substance misuse, including the use of alcohol and prescribed or illicit drugs. Mothers who disclose substance misuse should be looked after in the Substance Misuse Antenatal clinic, to facilitate planning of maternity, neonatal and social care within a multidisciplinary team. Mothers whose babies are at risk of Neonatal Abstinence Syndrome (NAS) should not deliver on the Midwifery Led Unit.

Women using opiates who are not already in a drug treatment programme should be encouraged to accept referral to specialist services so that there can be an in-depth assessment of substance use, drug screening to confirm present use, ongoing counselling and support with stabilising use through substitute prescribing (methadone).

Initial contact between women and maternity services is likely to influence their subsequent uptake of care. Non-judgemental care from maternity unit staff encourages regular attendance by the mother, which in turn improves antenatal care, detection of fetal growth restriction, neonatal care, communication between members of the multi-agency team, and discharge planning.

Referral Criteria to Substance Misuse Antenatal clinic
- Current and previous history of misuse of heroin, other opiates, cocaine, diazepam, cannabis etc.
- Mothers receiving regular prescriptions of methadone or buprenorphine (Subutex®) as part of a substance misuse treatment programme
- Excessive alcohol use/Aquarius involvement
- Relevant partner history of substance misuse

Mothers already engaged with Specialist Drug workers may choose not to see the team of specialist drug workers present in HEFT antenatal clinic. However, mothers will be seen by a specialist midwife, and a plan for the pregnancy and discharge of mother and baby will be initiated as detailed in the guideline.

Neonatal Abstinence Syndrome (NAS)
NAS can occur in infants born to mothers dependent on certain drugs including opioids, benzodiazepines, alcohol and barbiturates. It is characterised by central nervous system irritability, gastrointestinal problems and autonomic hyperactivity. NAS is described in more detail further on in this guideline. All mothers whose infants are thought to be at risk of NAS should receive both verbal and written information on this condition. They should also be informed of the care pathway for babies at risk of NAS which includes testing of babies’ urine after delivery.
Babies at risk of NAS should not deliver at Solihull Hospital

Confidentiality and documentation
All professionals should be aware that although the maternal hand-held antenatal notes (Green Book) are marked confidential, anything written therein is often read by others. Ensure that mothers agree before recording explicit details of substance misuse in this record. However, full documentation of discussion between the woman and the health care professional should be written in the maternal notes. Perinatal Alert forms undertaken in liaison with a Neonatologist, with one copy secured in the maternal and the second copy place in a designated folder on delivery suite.
Domestic Abuse
Substance misuse may be associated with current or past experiences of abuse, which staff should be aware of. It is well recognized that domestic abuse often escalates during pregnancy.

Domestic abuse is defined as “Any incident of threatening behaviour or abuse (psychological, physical, sexual, financial or emotional) between adults who are or have been intimate partners or family members, regardless of gender or sexuality” (CMACE 2011). This broader term is now used in order to incorporate issues that mainly concern women from minority ethnic groups, such as forced marriage, FGM and ‘honour-based’ crimes.

CMACE continues to recommend routinely ‘asking the question’ & that all women should be seen alone at least once in the antenatal period. If injuries are noticed, women should be asked sympathetically, but directly, about these injuries and healthcare professionals should be prepared to follow this up with advice, support and information as needed. It is also recommended that family/friends are not used as interpreters, but that the appropriate Trust approved interpretation services should be used in order to facilitate disclosure. Information about sources of help should be displayed in suitable places in antenatal clinics, such as the ladies toilets. There should also be an appropriate method of recording the response in the pregnancy notes (see Domestic Abuse Guideline).

Pregnancy is not a protective factor. Of the women who were killed, all but 3 of them were still pregnant.

Screening for Blood-borne Viruses (Hepatitis B, Hepatitis C and HIV)
All women booking for antenatal care at HEFT are routinely asked if they wish to be screened for Hepatitis B and HIV (in addition to Syphilis and Rubella). In both cases, mother-to-child transmission can be prevented: in HIV by maternal and neonatal treatment with antiretroviral therapy and avoidance of breastfeeding, and in Hepatitis B by the immunization of the neonate after delivery. Hepatitis C in the UK is most frequently found in intravenous substance misusers. Chronic carriers of Hepatitis C have a lifetime risk of up to 20% of developing cirrhosis. Currently there is no way of preventing mother-to-child transmission but there are obvious benefits to both mother and baby for long-term health surveillance.

It has been established in HIV infection that those who decline screening is significantly more likely to be infected than those who accept screening. Mothers who have declined screening at booking should be asked again about screening opportunistically at every subsequent visit.

Mothers who are found to be HIV positive will be referred to a dedicated Consultant Physician within HEFT (see Screening Guideline). Mothers found to be chronic carriers of Hepatitis B will be identified by the antenatal screening co-ordinating specialist midwives so that their baby can be immunized after birth. Mothers who are found to be carriers of Hepatitis C should be referred to consultant in ID at HEFT.

Plan of Antenatal Care
The schedule for antenatal care should follow that detailed in flow chart 1.

Mothers who do not engage with maternity services (i.e. non-booked patients who deliver within the Trust) also need detailed multi-agency discharge planning. They also require urgent screening for blood-borne viruses on admission, in order to better plan neonatal care.

Aside from clinical considerations that have been outlined in this guideline, an essential part of antenatal care will be to address the woman’s substance misuse. If the pregnant woman
is not in contact with treatment services, the Specialist Midwives will make an appropriate referral as soon as possible.

A thorough assessment of the mother’s social circumstances must also be made for referral to social care and future health planning. This assessment needs to be done at booking. A referral to the Specialist Midwife, Maternity Safeguarding Team for Children will enable a thorough search for previous Social Care and Health Issues to be undertaken.

A pre-birth conference should be arranged for those mothers for whom it is considered necessary. Mothers should be made aware of postnatal care plan for baby, which will include routine collection of urine for drug screening, scoring for NAS and being offered Hepatitis B vaccination, regardless of serology results.

**DNAs**

There is a well-established general guideline for the follow-up of mothers who do not attend scheduled antenatal clinic appointments. It is also necessary to inform the mother’s specialist drug worker or team that the mother is failing to attend antenatal clinic. They may have additional opportunities to engage with the mother on a non-hospital setting and encourage attendance. A referral / letter to the safeguarding midwife and specialist midwife for substance misuse will be required for persistent failure to attend booked antenatal clinic appointments.

The recommended course of action following DNA is to contact the patient on the same day to arrange a further clinic appointment in a week’s time.

If they fail to attend on the 2\textsuperscript{nd} occasion this should prompt the antenatal clinic midwife to:
- Contact the patient again directly
- Ask the community midwife to make contact with the patient or visit her
- Notify the Midwife for safeguarding Lead
- Inform the mother’s specialist drug worker or team that the mother is failing to attend antenatal clinic
- Multi agency team if involved

Two DNA’d appointments should prompt a community midwife visit because it is crucial both to engage these mothers in regular antenatal care and to work closely with the specialist midwife for children to enable fully informed decisions about discharge of the baby to be made.

The clinic midwife should document clearly in the maternal notes any actions taken and plans for follow.

**Specific Substances**

**Alcohol**

The current UK government recommendation regarding alcohol consumption during pregnancy is to avoid alcohol completely (RCOG 2006). Information about what constitutes a safe alcohol intake in pregnancy is conflicting. Current British governmental advice advises pregnant women not to drink alcohol at all in pregnancy. This includes binge-drinking in early pregnancy.

There is evidence that alcohol can damage the fetus throughout pregnancy. The following risks of excessive alcohol consumption in pregnancy have been identified:
- Increased risk of first trimester miscarriage
- Increased risk of major structural congenital anomalies
- Increased risk of second trimester miscarriage
Clinical Guideline for the Management of Substance Misuse in Pregnancy

- Pre-term labour
- Fetal growth restriction (<10th centile)
- Fetal alcohol syndrome (facial abnormalities, fetal growth restriction, neurodevelopment abnormality)

All women are questioned routinely about alcohol intake during pregnancy, but often underreport and underestimate their true intake. The table below can help to give a more realistic estimate of alcohol consumption.

<table>
<thead>
<tr>
<th>Beer, cider and Alco pops</th>
<th>Measure (Number of Units)</th>
<th>Half pint</th>
<th>Pint</th>
<th>330ml</th>
<th>500ml</th>
<th>1 Litre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ordinary strength beer, lager or cider</td>
<td></td>
<td>1</td>
<td>2</td>
<td>1.5</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>Export strength beer, lager or cider (e.g. Stella, Strongbow)</td>
<td></td>
<td>1.25</td>
<td>2.5</td>
<td>2</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>Extra strong beer (e.g. Special Brew, Diamond White)</td>
<td></td>
<td>2.5</td>
<td>5</td>
<td>3</td>
<td>5.5</td>
<td>11</td>
</tr>
<tr>
<td>Alco pops</td>
<td></td>
<td>-</td>
<td>-</td>
<td>1.7</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Wines and spirits</th>
<th>Small glass/pub measure</th>
<th>Wine glass</th>
<th>Bottle (750ml)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table wine</td>
<td></td>
<td>1.5</td>
<td>9</td>
</tr>
<tr>
<td>Sherry/Martini</td>
<td></td>
<td>0.8</td>
<td>2-3</td>
</tr>
<tr>
<td>Sprits</td>
<td></td>
<td>1</td>
<td>-</td>
</tr>
</tbody>
</table>

Table 1. Modified and reproduced from RCOG Statement 5 (2006), Alcohol consumption and the outcomes of pregnancy

The following actions are recommended for mothers drinking excessive alcohol;
- Advise the mother that her alcohol consumption may cause significant harm to her unborn child and that she should urgently consider stopping. In the case of women who are drinking heavily, stopping suddenly may be hazardous for the woman and her baby, so specialist advice should always be sought. Check liver function tests at booking. Consider liver scan of markedly abnormal
- Fetal anomaly scan with Consultant or Senior Radiographer at 20 -22 weeks
- Growth scan at 28, 32 and 36 weeks
- Refer for expert help if considering withdrawal
- Antabuse® (disulfiram) is contraindicated in pregnancy and breastfeeding

Amphetamine
Amphetamine (Speed) is often injected and hence is associated with the transmission of blood-borne viruses. It is often used in conjunction with other drugs so little evidence is available of its effects when it is the only substance being used.

The antenatal plan of care for mothers misusing amphetamine should be as follows;
- Screen for HIV, Hepatitis B&C
- Growth scan at 28, 32 and 36 weeks taking into account other substance misuse and past obstetric history
Benzodiazepines (Diazepam, Temazepam)
Maternal benzodiazepine dependence is associated with NAS, sometimes prolonged, but is not associated with any other adverse pregnancy outcomes per se. Sudden withdrawal from benzodiazepines can precipitate severe anxiety, hallucinations and seizures. Benzodiazepine misuse is commonly associated with other substance misuse; therefore it is essential to consider this when formulating an antenatal plan of care.
- Avoid abrupt withdrawal

Cannabis
Cannabis can be taken both by smoking and by mouth. The direct effects of cannabis on the fetus are uncertain but may be harmful. Cannabis use is associated with smoking (NICE, 2008). Smoking tobacco has a wide range of adverse effects including fetal growth restriction, preterm labour, stillbirth and sudden infant death.
- Smoking cessation should be encouraged (refer to smoking cessation) Lighten Up
- Consider a growth scan at 28 and 34 weeks taking into account previous obstetric history

Cocaine / Crack
Cocaine is a potent vasoconstrictor, which causes miscarriage, fetal structural anomalies, fetal growth restriction, abrupton, intrauterine death and preterm labour/delivery. Babies are at risk of neonatal abstinence syndrome. For these patients the following is suggested;
- Detailed scan (abdominal wall defects) at 20-22 weeks
- Screening for abdominal wall defects does not require a FM referral, scan as per FASP protocol for mid-trimester scans.

Heroin / Methadone / Other opiates
Heroin is misused via a variety of routes of administration including injecting, smoking, snorting and inhaling its vapours. Injecting heroin carries the risk of acquiring blood-borne viruses (HIV, Hepatitis B and C). Neonatal abstinence syndrome is also common in the babies of mothers who misuse opiates.

There is strong evidence that substitution of illicitly obtained heroin with methadone liquid in adequate doses and allowing for dose stabilisation has the following benefits:
- Injecting behaviour is reduced
- Reduction of the risk of transmission of blood-borne viruses
- Reduction of drug-related death
- Reduction of the use of illicit drugs
- Reduction of the frequency of criminal behaviour

Long term follow-up studies suggest that the outcomes for women and their babies are better in terms of their pregnancy, delivery and infant development, whether or not they continue with illicit drug use (DoH, 1999). Entering into a methadone maintenance programme also allows engagement with Drug Treatment services which include counselling, health promotion and help with social care support.

Women already engaged in a methadone programme should be offered care by the Specialist Midwife associated with the antenatal clinic, but may choose to continue with their existing Drug Team.

Although there is evidence that NAS is less likely when maternal methadone dose is less than 20ml per day, in practice very few women will be stabilized on such a low dose. Indeed, inadequate methadone dosing is associated with increased use of illicit opiates and should be avoided. Some women will try to reduce their methadone dose during pregnancy to avoid NAS and should be made aware of problems that may occur in the third trimester.
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The antenatal plan of care for mothers misusing heroin and other opiates should be as follows;

- Aim to **stabilize** on methadone on adequate dose to discourage other drug use
- Avoid injecting
- Screen for HIV, Hepatitis B&C
- Growth scans at 28, 32 and 36 weeks as minimum, taking into account other substance misuse and past obstetric history

For those mothers already being prescribed methadone, in addition to the above;

- Maintain mothers on an adequate dose to discourage other drug use
- Methadone dose may need to be increased in the third trimester (plasma concentrations may decrease as gestation increases). This increase will need to be reversed in the post-partum period.
- Only reduce dose if mother is highly motivated

**Buprenorphine (Subutex®)**

Buprenorphine (a partial opioid agonist, administered sublingually) is used as substitution therapy for patients with moderate opioid dependence. There is very little published evidence on its use in pregnancy but it is well known to cause NAS. It is not recommended that mothers already stabilized on buprenorphine be switched to methadone. The prescription of buprenorphine should be continued during admission, labour, and in the postnatal period.

The antenatal plan of care for mothers maintained on buprenorphine should be as follows;

- Screen for HIV, Hepatitis B&C
- Growth scans at 28, 32 and 36 weeks as minimum, taking into account other substance misuse and past obstetric history
- Arrange an Anaesthetic opinion at 34 weeks. Opioid analgesics may be less effective in labour because of the high affinity of buprenorphine for central opioid receptors. Regional anaesthesia should be discussed.

**Maternal Inpatient Care**

**Admission**

When a mother is admitted to hospital and is unable to collect her usual methadone prescription, the community dispensary will cancel that prescription after 3 chemist days. It is essential that the patient’s drug worker(s) and the specialist midwife be informed of the admission to allow arrangements to be made to avoid discharge with no prescription in place, contact should ideally be made my a telephone call, with all contacts detailed in the maternal notes. If this channel of communication fails the woman is much more likely to start using heroin or other drugs obtained from illicit sources.

- Inform the woman’s specialist drug worker/team of their admission
- Inform the specialist midwives for substance misuse of their admission
- Clarify the dose of any prescribed medications (methadone, benzodiazepines) with her specialist drug worker/team and get these prescribed on an inpatient drug chart correctly, documenting discussion of current medication in maternal notes.
- Methadone prescription should be flexible and allow for specific needs. Timing of administration should follow the woman’s normal pattern as much as possible.
- Subutex® (buprenorphine) prescription should also continue in hospital. The dose will need checking with the woman’s specialist drug worker/team unless it is already clearly documented in the hospital notes.
- Prior to discharge, the woman’s specialist drug worker/team will need to be notified to allow for her prescription to be restarted in the community.
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- Please anticipate weekend discharges therefore a community prescription should, ideally, be planned in advance, when possible. Discharging without a planned prescription in place could potentially encourage the woman to obtain opiates illegally.

**Disclosing drug use for the 1st time on admission to hospital**
- Inform Neonatologists and Specialist Midwife as early as possible.
- Following delivery send urine of both mother and baby to laboratory for drug misuse screen.
- Until laboratory results are obtained encourage woman to express if she wants to breastfeed. Liaise closely with Neonatologist, and Breast Feeding specialist Midwife if appropriate.
- Keep mother and baby together unless there are significant, objective concerns regarding the mother’s ability to care for her baby.

**Missed doses**
If a woman claims to have missed several doses of methadone, enquiries should be made as to where the woman picks up her prescribed methadone. Liaison with the woman’s specialist drug worker, specialist midwife and, if necessary, the pharmacy of collection is important in this situation. Events should be documented clearly in the maternal notes. Do not give Methadone if unsure without undertaking lateral checks with other professionals.

**Labour and pain relief**
- Obtain mother’s urine prior to administering analgesia if possible
- Inform the mother’s specialist drug worker/team (within office hours) of the admission
- Inform other members of the multi agency team
- Aim to administer the usual dose of methadone during labour at the usual time
- Standard opiate analgesia in labour can safely be given. **NB Methadone will not be adequate for analgesia in labour.**
- Adequate pain relief during labour can be difficult for Subutex® (buprenorphine) users, as it can reduce the effects of opioid analgesics (due to the high affinity of buprenorphine for mu opiate receptors). Morphine and pethidine may be inadequate for labour analgesia in labour; regional analgesia may be preferable. Involve the on-call anaesthetist early.
- Mothers will be advised and encouraged to stay in hospital for a minimum of 3 days following the birth. The baby will be observed for signs of NAS during this period (Appendix 1).
- Neonatologists should be informed when delivery is imminent, but do not need to attend routinely unless there are other maternal or neonatal indications.
- **It is important that NALOXONE IS NOT ADMINISTERED** as this can exacerbate respiratory depression and risk of seizures, both of which may be counteracted by use of morphine.

**Infant feeding**
- The benefits of breast-feeding should be discussed with all women antenatally. The exceptions to promotion of breastfeeding are:
  - If a woman is HIV positive
  - If she is using any illicit drugs of stimulant drugs such as cocaine, “crack” or amphetamines, because of vasoconstriction effects.
  - If drinking heavily or taking large amount of non-prescribed benzodiazepines, because of potential sedative effects.
In some cases such as extreme prematurity mothers may be asked to express milk but this will be at the neonatal consultant discretion.
Postnatal Care

In most cases where there have been child protection concerns about previous children, Children services would have organised a case conference before the baby arrives but the final decision may not be made. The case should be managed in the light of the recommendations of the case conference. The case conference minutes may not be available but there should be a birth plan in medical records which are transferred from maternal records at delivery.

The postnatal period offers an opportunity for the:

- Facilitation of mother: baby relationship
- Assessment of maternal wellbeing and parental skills
- Discharge planning meeting with the multi-disciplinary team
- Report of any child protection concerns

Neonatal Abstinence Syndrome

NAS can occur in infants born to mothers dependent on certain drugs including opioids, benzodiazepines, cocaine, alcohol and barbiturates. Babies of mothers who use cannabis alone do not require scoring but a urine is required. It is characterised by central nervous system irritability, gastrointestinal problems and autonomic hyperactivity. The symptoms normally present within the first 24 – 72 hours after birth, but may present up to a week later. There appears to be little correlation between the amount of maternal drug use and the severity of NAS, and practitioners should be aware of the signs and symptoms of NAS, as not all maternal drug use may have been reported. (Refer to Appendix 1 for neonatal observation chart).

It is very important that signs and symptoms of NAS are discussed with the pregnant women well before her baby is due as these babies are often born prematurely.

Babies should be reviewed regularly by appropriately qualified and experienced personnel e.g. a Neonatologist, Advanced Neonatal Nurse Practitioner (ANNP).

- All mothers and babies should be transferred to the postnatal ward unless there is a medical reason for admission to the Neonatal Unit (NNU). Separation should be avoided whenever possible.
- Urine is collected as a routine from every baby at risk of NAS and tested for “drugs of abuse”. (See flow chart page 6). Following delivery all known drug dependent women should be encouraged and advised to stay in hospital for a minimum of 72 hours so that any symptoms of NAS can be picked up. If the baby experiences abstinence syndrome requiring treatment with morphine, hospital stay will be prolonged and can be for several weeks, depending on the severity.
- The use of the NAS Scoring System should be fully explained to the mother in the antenatal period as she may be involved in the scoring process. NAS scoring charts should be kept in the ward office for reasons of confidentiality.
- All babies of drug dependent mothers will require a course of Hepatitis B to be started as soon as possible after birth regardless maternal serology.
- Gain written consent for the Hepatitis B from the mother during the antenatal period. (See appendix 2 for consent form)
- If the mother is Hepatitis B surface Antigen positive or has had Hepatitis B infection during pregnancy, the baby also needs Hepatitis B Immunoglobulin (0.5ml at birth and at 6 months of age). However if the mother is also Hepatitis B Antigen positive there is no need for immunoglobulin.
- Babies should be assessed for signs of withdrawal at 6 hours of age and 4 hourly intervals after that, always FOLLOWING A FEED.
Consider other potential causes for symptoms associated with NAS such as hypoglycaemia, hypocalcaemia, hypomagnesaemia, sepsis and meningitis. Consider taking blood for FBC with differential, blood culture, CRP, electrolytes, calcium, magnesium and glucose. If baby remains irritable and inflammatory markers are raised a LP should be considered.

**Cranial USS is not routinely recommended.** There is no sufficient evidence to support a mandate for CUSS in all cocaine exposed infants. CUSS should only be considered on cocaine exposed premature babies, infants whose HC falls below the 10th percentile on standardized foetal growth curves and infants with abnormal neurological signs.

**Renal USS is not recommended as there is no evidence to support this investigation.**

They should be scored for behaviour noted during the four hour period and not just at time recording is made. If two consecutive total scores of 5 are documented, or one of 6, the Neonatologist should be informed and treatment with Oromorph® must be considered (refer to NNU protocol). Oromorph is usually commenced when scores are sustained at ≥8.

In the rare situation where mother is only allowed supervised access to the baby in the newborn period prior to fostering, the baby will need to be accommodated on the NNU. Social workers should be informed that the hospital cannot monitor mothers continuously with their babies on the postnatal wards.

**Discharge Planning**

Mothers who do not engage with maternity services (i.e. non-booked patients who deliver within the Trust) also need detailed multi-agency discharge planning.

**Babies must not be discharged without a Discharge Care Meeting Plan.**

- Urine must be recorded and reviewed by the medical team prior to discharge in mother and baby’s medical records

**Neonatal – potential issues:**
- Late NAS (>72 hours)
- Longer withdrawal period associated with benzodiazepine misuse
- Advise mothers of the symptoms and signs of NAS
- Mothers should be informed that if there is an acute problem they should seek help in the normal way from their General Practitioner (GP)/ Health Visitor (HV)/ Neonatologist / Accident and Emergency (A&E)
- Advocate daily Community Midwife (CMW) visits
- Must identify name and contact details of HV prior to discharge, and liaise with HV

All babies needing admission to the NNU and treatment will be followed up at 3 months, 6 months, 12 months, 18 months and 2 years.  
(See guidelines for management of NAS baby)

**Maternal – follow up arrangements:**
- Inform mother’s Specialist Drug worker of discharge
- Multi-professional meeting for all cases with Social care and health plan
- Plan for the issuing of prescriptions after in-patient stay for mothers. The mother’s specialist drug worker/team will be able to arrange this.  
- Avoid discharging a mother prior to a weekend without ensuring her prescription is active with a community dispensary/pharmacy
- Mother’s urine must be recorded in medical records
4 Reason for development of the Guideline

This guideline has been developed to enable streamlined and effective multidisciplinary care of women who disclose that they are misusing substances during pregnancy.

78% of known substance abusers did not have appropriate care in the last CEMACH Report, compared with 44% for this Report (RCOG 2010). Improving access to care for the most disadvantaged or vulnerable women have long been a recommendation of CEMACH reports. This issue is being addressed in the latest guideline from the National Institute for Health and Clinical Excellence on providing models of maternity service provision for pregnant women with complex social factors. The steep fall in the number of substance abusers not accessing appropriate care shows why these guidelines are being used and how this approach of care is working.

There is an overriding imperative to ensure that problems secondary to substance misuse that arise during pregnancy are communicated to both Neonatal practitioners and the Social Care teams that will be involved in the care of the infant after delivery and on discharge.

5 Methodology

This guideline was formulated over the course of several discussions within a group consisting of Specialist midwives, Neonatologists, the Lead GP (Substance Misuse, Birmingham Drug and Alcohol Action Team, Heart of Birmingham (Teaching) PCT), an Obstetrician, Specialist Drug Workers, a Specialist Nurse for Disadvantaged Children and a Named Nurse for Safeguarding Children. The most up-to-date evidence was sought as were guidelines in the public domain which have been developed by other healthcare providers.

Development of the guidelines adheres to a process of examining the best available evidence relevant to the topic, incorporating guidance and recommendations from national and international reports.

Finalised guidelines will ultimately be approved and ratified by the Directorate locally.

6 Implementation in HEFT & community

Following approval the guideline will be disseminated and available for reference to all members of the multidisciplinary team via the Trust intranet site; also paper copies will be stored in a marked folder within a designated clinical area.

7 Monitoring

Adherence and efficiency of clinical guideline will be monitored through regular clinical audit.

Multidisciplinary auditing of a clinical guideline will be allocated and overseen by the Clinical Audit Lead.

<table>
<thead>
<tr>
<th>Element to be monitored</th>
<th>Tool</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offering and acceptance of antenatal screening for blood-borne viruses (Hepatitis B &amp; C, HIV)</td>
<td>Maternity Information system (MIS)</td>
<td>Ongoing audit by specialist midwives via relevant database</td>
</tr>
<tr>
<td>Discussion of need for social care planning</td>
<td>Proforma</td>
<td></td>
</tr>
<tr>
<td>Involvement of specialist drug workers and teams in maternal ante- and post-natal care</td>
<td>Datix</td>
<td></td>
</tr>
<tr>
<td>Completion of a neonatal alert form</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Clinical Guideline for the Management of Substance Misuse in Pregnancy

<table>
<thead>
<tr>
<th>Evidence of antenatal discussion of Neonatal abstinence syndrome (NAS)</th>
<th>Change in practice and lessons to be shared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serial growth scans</td>
<td></td>
</tr>
<tr>
<td>Evidence of multi-agency discharge planning</td>
<td></td>
</tr>
<tr>
<td>duration of hospital stay for babies needing admission to the Neonatal Unit</td>
<td></td>
</tr>
<tr>
<td>evidence of pre-birth information planning</td>
<td></td>
</tr>
<tr>
<td>evidence of pre-birth multidisciplinary meetings (i.e. so there is evidence in the baby notes that information sharing had taken place appropriately)</td>
<td></td>
</tr>
<tr>
<td>Documented management plan of the newborn of women known to have misused substances in pregnancy</td>
<td></td>
</tr>
<tr>
<td>Reporting arrangements</td>
<td>Acting on recommendations and lead(s)</td>
</tr>
<tr>
<td>The completed reports will go to the clinical governance group and be presented at the departmental audit meetings. Action plans will be documented in minutes.</td>
<td>Required changes to practice will be identified and actioned within a specific time frame. A lead member of the team will be identified to take each change forward where appropriate. Lessons will be shared with all the relevant stakeholders</td>
</tr>
<tr>
<td>The leads will use the electronic tracker system for audit to track action plans, which will have stated time frames</td>
<td></td>
</tr>
</tbody>
</table>

Following clinical audit of a guideline an addendum to change in clinical practice may be necessary. Any change to a clinical guideline requires that it must be ratified by the directorate locally.

Review dates will be set at a period of three years; however this set period can be overridden in light of new clinical evidence.

All unused/previous guidelines will be archived electronically and in paper format within the Trust.

### 8 References

- Department of Health (1999) Making a difference: Strengthening the Nursing, Midwifery and Health Visiting contribution to health and Health care.
- CMACE (2011). Chapter 12: Deaths apparently unrelated to pregnancy from coincidental and late causes including domestic abuse.
- Department of Education. 2013. Working together to Safeguard Children: a guide to inter-agency working to safeguard and promote the welfare of children (DfE, 2013)
Clinical Guideline for the Management of Substance Misuse in Pregnancy

- National Institute clinical Excellence (NICE 2007) Treatment for drug misuse
- Ofsted. (2013). What about the children? Joint working between adult and children’s services when parents or carers have mental ill health and/or drug and alcohol problems
Appendices

Appendix 1 - Neonatal Abstinence scoring chart - Drug Withdrawal Chart

<table>
<thead>
<tr>
<th></th>
<th>TREMOR</th>
<th>Date</th>
<th>Score</th>
<th>Time</th>
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<tbody>
<tr>
<td>Mild tremors disturbed</td>
<td></td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Moderate/severe tremors disturbed</td>
<td></td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Mild tremors undisturbed</td>
<td></td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Moderate/severe tremors undisturbed</td>
<td></td>
<td></td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Hyperactive Moro reflex</td>
<td></td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Marked hyperactive Moro reflex</td>
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<table>
<thead>
<tr>
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<th>IRRITABILITY</th>
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<tr>
<td>High pitched cry</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Continuous/excessive high pitched cry</td>
<td></td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hypertonicity</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Myoclonic jerks</td>
<td></td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Generalised convulsions</td>
<td></td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequent yawning</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sleeps &lt;1 hour after feeding</td>
<td></td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sleeps &lt;2 hours after feeding</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sleeps &lt;3 hours after feeding</td>
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<td>1</td>
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<table>
<thead>
<tr>
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<th>Date</th>
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<tbody>
<tr>
<td>Nasal stuffiness</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sneezing</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasal flaring</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respiratory rate &gt;60/min</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respiratory rate &gt;50/min with recession</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature 37.2-38.2°C</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature &gt;38.2°C</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
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</table>

<table>
<thead>
<tr>
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<th>GASTRIC DISTURBANCES</th>
<th>Date</th>
<th>Score</th>
<th>Time</th>
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<tr>
<td>Frantic sucking of fists</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor feeding</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unprovoked possetting</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Projectile vomiting</td>
<td></td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loose stools</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Watery stools</td>
<td></td>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Name:…………………………..
PID:……………………………..
DOB:…………………………..
Appendix 2 - Hepatitis-B Vaccination Consent Form

Hepatitis-B is an infection of the liver caused by a virus. Hepatitis-B can be passed to a baby at birth from an infected mother. It may be passed from an infected child or adult to another person by sexual contact, by contact with their blood or body secretions, or from a human bite. There are over one million persons carrying this virus in their bodies who have chronic hepatitis, which is a serious and long-lasting form of liver infection.

Vaccination with Hepatitis-B vaccine (which is made from yeast) is a safe and effective means to prevent Hepatitis-B infection. It is recommended that a total of three doses of the vaccine be given in infancy to prevent transmission of Hepatitis-B at birth and during childhood. Nice guidelines state that newborn babies should receive the first dose of Hepatitis-B vaccine soon after birth, the second dose approximately one to two months later, and the third dose at approximately six months of age.

Possible side effects of Hepatitis-B vaccine include minor tenderness at the site of the injection and a small chance of a low grade fever within the first day after the vaccination. No serious side effects in children have been linked to this vaccine.

I have read the above and agree that my newborn infant should receive the first dose of Hepatitis-B vaccine soon after birth.

I give permission for the medical staff at Heart of England Foundation Trust to administer this vaccine. I realise that two additional doses of this vaccine are needed to complete the vaccination programme to prevent Hepatitis B infection.

This information was explained to me by:

________________________ Name________________________ Signature (Dr / RM ) ____________ Date

________________________ Parents Name________________________ Signature ____________ Date

Generic Maternity Information Service alert form for Obstetrics
## Appendix 3
### Clinics accessible from the Emergency Department

<table>
<thead>
<tr>
<th>Clinic/service name:</th>
<th>Maternity Substance Misuse Service</th>
</tr>
</thead>
</table>
| **When the clinic /service runs:** | **GHH**: every Tuesday 1pm onwards  
**BHH**: every Wednesday 1pm onwards |
| (day and time)       | This is a Mon-Fri 9-5 service and women may be seen on other days if necessary. Messages can be left out of hours |
| **Contact details:** | **GHH**: Marianne.cutler@heartofengland.nhs.uk  
Ext. 49344 mob 07974741005 |
|                     | **BHH**: carmel.newton@heartofengland.nhs.uk  
Trudy.fenner@heartofengland.nhs.uk  
Ext. 40356 mob 07814237363 |
| **How to access the clinic:** | Leave a message on landline with information and patient PID or send an email to relevant person |
| **Any other information:** | For anyone presenting that is pregnant and suspected of using drugs or alcohol |
### Meta Data

<table>
<thead>
<tr>
<th>Guideline Title:</th>
<th>Substance Misuse in Pregnancy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guideline Sponsor:</td>
<td>Obstetric &amp; Gynaecology Directorate</td>
</tr>
<tr>
<td>Date of Approval:</td>
<td>20th April 2016</td>
</tr>
<tr>
<td>Effective from:</td>
<td>9th May 2016</td>
</tr>
<tr>
<td>Approved by:</td>
<td>Obstetric &amp; Gynaecology Guideline Group</td>
</tr>
<tr>
<td>Review Date:</td>
<td>9th May 2019</td>
</tr>
</tbody>
</table>

#### Related Policies/Topic/Driver
- Antenatal non-attendees
- Referral from Midwifery led care to Consultant led care
- Domestic Abuse
- Infections in Pregnancy
- Breast feeding Policy
- Booking Appointments and Risk assessment pathway
- NNU Guidelines

### Revision History

<table>
<thead>
<tr>
<th>Version No.</th>
<th>Date of Issue</th>
<th>Author</th>
<th>Reason for Issue</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>June 2009</td>
<td>K Barber, I Tiron, A Bedford Russell</td>
<td>Merger &amp; update</td>
</tr>
<tr>
<td>2</td>
<td>November 2010</td>
<td>M. Gainer</td>
<td>Review</td>
</tr>
<tr>
<td>3</td>
<td>June 2014</td>
<td>T Fenner-specialist RM, C Newton-specialist RM, Dr S George-Cons. O&amp;G, Dr M Plunkett-Cons. Paediatrician, Dr I Storey-Cons. Neonatologist, M Cutler-specialist RM</td>
<td>Full review including addition of NAS &amp; Hep B consent form</td>
</tr>
<tr>
<td>4</td>
<td>May 2016</td>
<td>P. Karkhanis – Consultant O&amp;G</td>
<td>P11. Ultrasound scans for Cocaine/Crack users: Addendum to clinical practice from: Detailed scan (abdominal wall defects) at 20-22 weeks &amp; Serial growths scans at 28, 32 and 36 weeks for fetal growth restriction (FGR) to; Screening for abdominal wall defects does not require a FM referral, scan as per FASP protocol for mid-trimester scans.</td>
</tr>
</tbody>
</table>

Clinical Director: Katherine Barber

Signed: [Signature]

Date: 4th May 2016