CATEGORY IV – DISTINCTIVE GROUPS: PREGNANCY – AND SUBSTANCE MISUSE

1.0 Introduction

Substance use, misuse and harmful use and dependence are associated with considerable mortality and morbidity in the mother and serious impacts on the foetus, which can have lifelong consequences (Crome et al, 2010) including taking drugs, drinking alcohol and smoking. The number of women misusing drugs and alcohol has increased considerably in the past 30 years, and many are in their childbearing years. The Confidential Enquiry into Maternal Deaths in the UK for 2006-08 found that there were thirty-one deaths of women known to be substance misusers in pregnancy. The prevalence of opiate use among pregnant women can range from 1% to 2% to as high as 21%.

This fact sheet is concerned about those who present to services at any stage of pregnancy and focuses on those who may be using drugs (licit or illicit).

LEARNING OUTCOMES

Medical students will gain knowledge in:

1. Describing the range of substance use disorders in pregnancy.
2. Understanding how different substances affect the foetus.
3. Identifying women who are substance misusers or at risk of misusing substances.
4. Outlining steps for the management of women with substance misuse in pregnancy.

Vignette

Lucy, A 26-year-old pregnant lady was referred by her GP, who had begun prescribing her buprenorphine. She lived with her boyfriend, who was an older, established drug user. He has not accessed treatment. Her supportive family did not know about her drug use. While she appeared relatively stable on methadone, in fact she never produced a negative urine screen and her methadone gradually crept up. She attended the antenatal clinic fairly reliably and used some support for her child as well. Since her partner was a drug user, she was tempted to 'use on top' just a little each day. They are keen to have another child. How would you manage the situation?

2.0 Context

Substance misuse in pregnancy is associated with significant maternal and foetal morbidity. This is often further complicated by associated legal, social and environmental problems that can interfere with both provision of care and the patient's ability to care for her child after delivery. Therefore multidisciplinary team (MDT) involvement is essential in the management of this at risk and vulnerable group.

There are a number of health problems in pregnancy that need to be discussed with the woman and reviewed throughout the pregnancy. These include general nutrition, risks of anaemia, alcohol and nicotine consumption, oral hygiene and complications from chronic infection related to injection practice.

3.0 Common presentations

3.1 Special features

- Presentation is often at the instigation of parents, teachers, social services, criminal justice agencies, GPs or other agencies. They tend not to attend antenatal services regularly and require additional support and encouragement to ensure that they receive the necessary care and treatment for the unborn child.
- If the drug or alcohol user has not been taking care of herself and her health, as a result of a chaotic lifestyle, there are likely to be other social and medical concerns, such as poor health and nutrition, social deprivation, homelessness and psychiatric complications that need to be taken into consideration.
- Women should always be treated with kindness, respect and dignity. The views, beliefs and values of the woman in relation to her care and that of her baby should be sought and respected at all times (NICE, 2010).

3.2 Distinctive features

- Pregnancy can lead women who misuse substances to address their problems to protect their unborn child and will seek help to help address the problems.
- Women using substances who become pregnant often present to antenatal services at a late stage in pregnancy. They may be amenorrhaeic due to substance use and therefore would not necessarily be concerned if there was a lack of menstruation over a few months.
- Substance misusers are also at risk of blood borne viruses such as hepatitis B, C and HIV and these can present a risk to the woman and the unborn child.
- Opiate withdrawal syndrome occurs in at least 50% of babies born to mother using opiates.

3.3 Barriers to detection and access

These include:

- Fear of being judged.
- Fear and guilt of harm they may have done to the unborn foetus.
- Fear of contact with services due to fear of losing the unborn child or other children if deemed unable to care for the children.
- Fear of children being taken away from her due to her substance abuse.
- Patient being reluctant to provide urine sample which will assist in detection.
- Lack of skills and expertise of obstetricians and midwives to screen and provide the necessary help, encouragement and referral for specialist treatment for substance problems.
- Irregular attendance at appointments or attending different services or hospitals.

4.0 Assessment

All pregnant women should be asked about personal history of drug, alcohol and nicotine misuse and that of their partner at the booking (first antenatal) visit. Patients disclosing substance misuse for the first time in pregnancy and requesting help should be referred to a substance misuse service. If a woman discloses illicit drug use or alcohol misuse, ask what she is using, the quantity used and how often, by which route, when she last used and about financing and how much her weekly spend is on substances. A woman who is identified as an illicit drug user should be asked for her consent and a urine specimen should be checked each visit, weekly till stable and then fortnightly in order to confirm or exclude the presence of illicit drugs and/or methadone. Women with a current history of alcohol misuse should be referred to the local substance misuse service or the Alcohol Liaison Service (if it is available), by a midwife or other health care professionals.

Consider any concerns you or Lucy has about her partner's drug use. What impact will this have on her substance use, and her attempt to stabilise her drug use.

It is always important to consider the impact that the patient's social network may have on their own situation:

- Will it be a negative impact?
- Is she a vulnerable adult as the partner is using her to deal drugs, being coerced or forced to get involved in other criminal activities or prostitute herself?

5.0 Treatment

A multidisciplinary team (MDT) approach is ideal to provide care for the alcohol or drug dependent pregnant woman. Consideration also needs to be given for those smoking tobacco. The multidisciplinary maternity team should include a GP, midwife, obstetrician, and neonatologist, Substance Misuse Service (SMS) and/or Community Drug Team (CDT). MDT may also involve alcohol services or liaison services (if they are available), social services and other relevant authorities. MDT members should liaise on a regular basis. Roles will differ between these specialities. Early referral should be made for consultant booking. All pregnant women are offered screening for blood borne viruses including HIV and Hepatitis at booking. It is good practice to repeat the screening for women who have a history or currently misuse substances in pregnancy. Screening for sexually transmitted diseases should be offered at booking and referral to a Genitourinary Clinic should be made accordingly. Child protection issues should be considered and referral to social services should be made if there are any concerns.

Substance use and associated problems

Substance	Effects
Alcohol	• Infertility • Abortion • First trimester miscarriage • Microcephaly • Intrauterine Growth Restriction (IUGR) • Orofacial clefts • Neonatal admissions • Low APGAR scores • Cognitive dysfunction • Behavioural abnormalities • Foetal alcohol syndrome • Structural abnormalities
Tobacco	• IUGR • Preterm birth • Placental abruption • Oral clefts and digital anomalies (possibly)
Cannabis	• Shorter gestation • Low birth weight • Increased risk of infant mortality
Cocaine	• In utero hyperactivity • Symmetric IUGR • Placental abruption • Cerebral infarction • Neonatal necrotizing enterocolitis
Opiates	• IUGR • Reduced breathing movement • Preterm delivery • Preterm rupture of membranes • Intrauterine withdrawal • Toxaemia • Third trimester bleeding • Puerperal morbidity • Foetal distress • Meconium aspiration

Substance	Effects
Opiates	• Neonatal complications include narcotic withdrawal, postnatal growth deficiency, microcephaly, neuro-behavioural problems , leading to admission to Special care baby unit if respiratory depression/ requirement for opiate withdrawal monitoring and treatment
Methamphetamine	• Growth restriction
Stimulants	• First trimester miscarriage • Structural abnormalities • Preterm labour • Placental abruption • Foetal growth restriction • Still birth
Sedative/ hypnotics	• Neonatal withdrawal symptoms • Possible structural abnormalities

Adapted from Crome et al (2010)

Managing drug treatment during pregnancy

Abrupt discontinuation of opioids in an opioid-dependent pregnant woman can result in preterm labour, fetal distress, or fetal demise. During the intrapartum and postpartum period, special considerations are needed for women who are opioid dependent to ensure appropriate maintenance, pain management, to prevent postpartum relapse and a risk of overdose, and to ensure adequate contraception to prevent unintended pregnancies.

In Lucy's management, she is titrated on to buprenorphine to 16mg over a few days. A multi-disciplinary discussion with Lucy, her midwife, the GP and input from the addiction specialist agree to keep her stable on that dose for 4 weeks. However, she is seen twice weekly for support by her key worker and once every two weeks by the community midwife. During appointments urine samples are taken to check that she is taking the medication and that she is not taking any other medication.

Doses of buprenorphine should be titrated according to regular review of the following clinical signs/symptoms:

- Intoxication, withdrawal, and craving over the past 24 hours
- Additional drug use and the patient's reason for use of illicit street drugs or prescription opioids
- Side effects or other adverse events
- Adherence to dosing regimen
- Patient's expressed satisfaction

For methadone treatment: the dosage should be adjusted throughout the pregnancy to avoid withdrawal symptoms, which include drug craving, abdominal cramps, nausea, insomnia, irritability, and anxiety. If a woman is treated with a stable methadone dosage before pregnancy, pharmacokinetic changes may require dosage adjustments, especially in the third trimester.

Medically supervised withdrawal from opioids in opioid-dependent women is not recommended during pregnancy because the withdrawal is associated with high relapse rates and therefore women are usually maintained on a stable dose during pregnancy.

In practice, intrapartum analgesia for women with a past or current history of substance misuse rarely poses problems. The use of non-pharmacological options such as immersion in water, TENS, mobilisation and relaxation techniques should be encouraged as for all women. The use of Entonox is also acceptable for pregnant women, who have substance misuse problems during labour. Pain relief options should be discussed in the antenatal period with a specialist midwife or anaesthetist. Pregnant women maintained on opioid substitute medications, (methadone or buprenorphine) will still require an assessment of their analgesia needs. These women will be tolerant to their maintenance dose of methadone or buprenorphine and therefore, should still have the option of further analgesia as required. The maintenance (daily) dose of methadone or buprenorphine should still be given at a regular time throughout the labour period.

When women request opioid analgesia during labour or following operative or instrumental delivery, the standard dose range of opioids (diamorphine, morphine, pethidine and fentanyl) should be tried initially. If this proves inadequate, additional doses can be cautiously administered.

Practitioners sometimes worry that systemic opioids in labour may trigger relapse. There is no evidence to support this. Appropriate discussion of all options and their relative advantages and disadvantages is recommended in the antenatal period. Additional psychological support may be helpful during labour and delivery (The British Pain Society, 2007).

Hints and Tips

Pregnant women are likely to show concern about the effect their drug use has had on the unborn baby, and for some they may not have known they were pregnant during the first trimester and are concerned about the unknown affects.

Opioids cross the placenta and affect the foetus directly and can put the baby at risk of physical dependency. It is therefore important to prepare the woman that the baby is likely to require special care in the neonatal unit and may require a detoxification. It is good practice to take the woman to the unit to meet the staff and see how her baby will be cared for.

If Lucy continues to use substance during her pregnancy you will want to think about some advice for her

- Using street drugs which may contain unknown substances (adulterants with which the drugs are mixed) and associated infections from contaminated injecting equipment, such as hepatitis, can put the foetus at risk.

- Any changes in the movement of the baby (either more or less) the patient should go to antenatal services or her GP as soon as possible to check that the unborn baby is not in distress.
- Street drugs may contain impurities and can put extra strain on the liver and kidneys, so it is better to use only drugs that have been prescribed when pregnant.
- DO NOT suddenly stop taking opiates (e.g. heroin, methadone, dihydrocodeine or buprenorphine) or benzodiazepines (e.g. valium) as this could be risky for mother and baby. If the mother wants to detoxify, it is best done under medical supervision, so that the unborn baby can be checked and the mother can be given support.
- If the mother smokes cigarettes, drinks alcohol or takes drugs, there is one very important thing to remember about feeding the baby – never share a bed with a baby – and never feed a baby lying down in bed, on a sofa, on the floor, or in a chair, where the mother could fall asleep and suffocate or injure the baby.

6.0 Referral/networks/services

It is recommended that all services involved in the care of a pregnant woman who also uses substances collaborate to provide a co-ordinated approach to the care with a clear plan.

NICE (2010) recommend that there is a local protocol that is developed jointly with social care providers, the police and third-sector agencies and healthcare professionals with expertise in the care of women experiencing domestic abuse and that it should include:

- clear referral pathways that set out the information and care that should be offered to women.
- the latest government guidance on responding to domestic abuse.
- sources of support for women, including addresses and telephone numbers, such as social services, the police, support groups and women's refuges.
- safety information for women.
- plans for follow-up care, such as additional appointments or referral to a domestic abuse support worker.
- obtaining a telephone number that is agreed with the woman and on which it is safe to contact her.
- contact details of other people who should be told that the woman is experiencing domestic abuse, including her GP.

It is also important to understand the local safeguarding children and young people protocol and know whether children and families services need to be involved and complete a Common Assessment Framework (CAF).

It would be useful to provide Lucy and all services with a sheet of information that includes the name and telephone number of everyone involved in her care including:-

- The GP
- The pharmacist
- The substance misuse nurse and doctor
- The obstetrician
- The midwife

7.0 Useful References and resources

Benningfield MM, Dietrich MS, Jones HE.(2012) Opioid dependence during pregnancy: relationships of anxiety and depression symptoms to treatment outcomes *Addiction;* 107 Suppl 1:74-82

Centre for Maternal and Child Enquiries (CMACE). Saving Mothers' Lives: reviewing maternal deaths to make motherhood safer: 2006–08. The Eighth Report on Confidential Enquiries into Maternal Deaths in the United Kingdom. *BJOG 2011;*118(Suppl. 1):1–203.

Crome, I.B, Ismail, K.M.K and Birnach D (2010) *Substance misuse in pregnancy.* De Swiet's Medical Disorders in Obstetric Practice 5th ed, ed by R.O Powrie, M.F. Green and W. Camann, Blackwell Publishing.

Day, E. , George, S (2005) Management of drug misuse in pregnancy. *Advances in Psychiatric Treatment)* 11: 253-261 doi: 10.1192/apt.11.4.253

Department of Health (2007). *Drug Misuse and Dependence Guidelines on Clinical Management*. The National Treatment Agency for Substance Misuse. London http://www.nta.nhs.uk/publications/documents/clinical_guidelines_2007.pdf

Fetal alcohol syndrome http://www.patient.co.uk/doctor/fetal-alcohol-syndrome-pro

Minizzi, S, Amatio, L, Bellisaro, C, Ferri, M., Davoli, M, (2013) Maintenance agonist treatments for opiate-dependent pregnant women. *Cochrane Systematic research review*
http://www.ncbi.nlm.nih.gov/pubmed/24366859

National Organisation on Foetal Alcohol Syndrome UK –. Or call their helpline on 08700 333 700. www.nofas-uk.org

NICE (2008) *Guideline on antenatal care (CG 62)*
http://www.nice.org.uk/guidance/cg62

NICE (2010) *Pregnancy and complex social factors A model for service provision for pregnant women with complex social factors (CG110)*
http://www.nice.org.uk/guidance/CG110

The American College of Obstetrics and Gynaecologists (2012) Opioid Abuse, *Dependence, and Addiction in Pregnancy, Committee on Health Care for Underserved Women and the American Society of Addiction Medicine*
http://www.acog.org/Resources_And_Publications/Committee_Opinions/Committee_on_Health_Care_for_Underserved_Women/Opioid_Abuse_Dependence_and_Addiction_in_Pregnancy

The British Pain Society (2007) *Pain and substance misuse: improving the patient experience.* http://www.britishpainsociety.org/pub_professional.htm#misuse

The FASD Trust –The FASD Trust operates a helpline for parents and carers of children with FASD. Call 01608 811 599. www.fasdtrust.co.uk

The Society of Obstetricians and Gynaecologists of Canada (2011) Substance Use in Pregnancy Clinical Practice Guideline; *Obstet Gynaecol Can 2011;* 33(4):367–384 http://sogc.org/guidelines/substance-use-in-pregnancy/

Whittaker A. (2010) *The Essential Guide to Problem Substance use during pregnancy.* London. DrugScope

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