Fact sheet
Pregnancy and parenting

A. Definition and objectives

- Substance abuse in pregnancy leads to consequences for the pregnant women, the fetus and neonate in two ways: direct consequences due to substance use or abuse as well as indirect outcomes resulting from the influence of living environment.
- Abstinence of opioids during pregnancy is difficult to maintain, but it presents the ideal goal. Opioid maintenance therapy is the recommended treatment approach during pregnancy and there appear to be few developmental or other effects on these children in the long term.
- Poly-substance dependence and misuse of either licit or illicit substances lead to the manifestation of a neonatal abstinence syndrome (NAS). The incidence of NAS in neonates of opioid-dependent women is between 70% and 95%. NAS is characterized by a variety of symptoms of variable intensity: sneezing, yawning, hyperactive Moro reflex, sleeping after feeding, tremor, increased muscle tone, myoclonic jerks, high pitched crying, excoriation, mottling, generalized seizure, convulsions, fever, sweating, nasal stuffiness, tachypnea, retractions, nasal flaring, poor feeding, excessive sucking, vomiting, diarrhoea, failure to thrive, excessive irritability and, in very rare cases, convulsions.

B. Evidence

- Methadone in the context of comprehensive care is associated with more prenatal care, increased fetal growth and less neonatal morbidity and mortality than continued opioid abuse.
- Although methadone is clearly beneficial, it has been estimated that 60–87% of the infants born to methadone-maintained mothers need treatment for NAS.
- Buprenorphine, approved in Europe since 1999 for the treatment of non-pregnant opioid-dependent adults, may reduce the incidence and/or severity of NAS. Buprenorphine demonstrates safety for mother and child, and shows effectiveness in the treatment of opioid-dependence during pregnancy, although limited controlled data are published so far.

- NAS may start any time during the first 24 hours up to 10 days postnatally, dependent on the medication administered during pregnancy or substance abused. The withdrawal syndrome of heroin in the neonate sets in during the first 24 hours. With methadone, the symptoms don't develop until after 48 hours. An even later onset of withdrawal symptoms can be observed if the neonate was exposed to buprenorphine, benzodiazepines or barbiturates *in utero.*
- It is not easy to determine which substances are the most beneficial in the treatment of NAS, as there are currently no double-blind controlled studies available. The effectiveness and safety of opiate treatment in neonates has been dealt with in a recent Cochrane Review, which concludes that opiates represent the preferred initial therapy for NAS, particularly for infants of mothers taking opioids during pregnancy.

C. Recommendations

Maintenance therapy during pregnancy

- Methadone maintenance therapy is the gold standard pharmacotherapy. There is a growing body of evidence regarding the use of buprenorphine while it was shown effective in recent studies.
- Methadone is the gold standard treatment during pregnancy because there is more evidence on the safety of methadone than buprenorphine in pregnancy. If women are being well treated with buprenorphine then the risks of transferring to an alternative treatment should be weighed against the certainty of methadone effects.
- Women who are in treatment should be encouraged to remain in treatment during pregnancy.

Management of NAS

- Clinicians should use opioids or barbiturates for the management of NAS. Untreated NAS can cause considerable distress to infants and in rare cases seizures. Cochrane reviews indicate that opioids and barbiturates are more effective than placebo or benzodiazepines. Of the two, opioids are probably more effective than barbiturates.

Access to treatment

- Every maternity unit should ensure that it provides a service that is accessible to and non-judgemental of pregnant problem drug users and able to offer high quality care aimed at minimising the impact of the mother's drug use on the pregnancy and the baby.

- Every maternity unit should have effective links with primary health care, social work children and family teams and addiction services that can enable it to contribute to safeguarding the longer-term interests of the baby.

Breastfeeding

- For women on methadone and buprenorphine, breast feeding is safe and should not be precluded. If an opioid-maintained mother wants to breastfeed her child, this should be encouraged: it can be helpful for mother-child bonding, and it might decrease NAS symptoms. Breastfeeding is not recommended if the mother is infected with HIV. In the case of a motherly hepatitis C virus infection, the decision to breastfeed depends on the virus-load and is ultimately taken by the pediatrician.

Blood borne viruses

- Pregnant female drug users should be routinely tested, with their informed consent, for HIV, hepatitis B and hepatitis C, and appropriate clinical management provided including hepatitis B immunisation for all babies of drug injectors. Transmission of these viruses from an infected mother to her baby can occur during pregnancy or birth or through breastfeeding.
- Elective Caesarean section appears substantially to reduce the rate of transmission of HIV.