

## **The clinical case for smoking cessation for pregnant women**

Smoking during pregnancy poses significant health risks to both mother and baby. In fact, smoking is considered to be the most significant modifiable cause of adverse pregnancy outcomes. The major components of cigarette smoke that are thought to cause harm are carbon monoxide and cyanide. These toxins freely cross the placenta and reduce oxygen and nutrient transfer to foetal tissues. Smoking also damages the placenta, causing reduced vascularisation, internal edema of the capillaries and broadening of the basement membrane of the placental.

For the mother, smoking is associated with a significantly increased risk of miscarriage, ectopic pregnancy, placenta praevia and deep vein thrombosis. In addition, there is an increased risk of stillbirth, premature birth, low birth weight, fetal growth restriction (FGR) and neonatal death for babies born to mothers who smoke, and they are twice as likely to die from Sudden Infant Death Syndrome (SIDS). Children born to mothers who smoke are more likely to have behavioural problems, including attention and hyperactivity problems, learning difficulties and reduced educational performance, and respiratory problems including asthma, wheeziness and frequent chest infections.

## **What are the benefits of quitting for pregnant women?**

Successful quitting will benefit a mother's long-term health by reducing the risk of disease development including heart disease, lung, breast and other cancers, and respiratory illness. Importantly, there is strong evidence that quitting smoking during pregnancy significantly improves pregnancy outcomes. To gain maximum benefit, a quit attempt needs to begin at the beginning of pregnancy and remain quit throughout the pregnancy. Women who stop smoking before 15 weeks of pregnancy reduce their risk of spontaneous premature birth and of having a low birth weight baby to the same as a non-smoker. However, temporary abstinence beginning in the first trimester or even the third trimester and lasting until a mother has finished breastfeeding will still have worthwhile benefits.

There is no safe level of smoking in pregnancy and smoking even a few cigarettes a day poses a significant risk to mother and baby. While some women have reduced their smoking, quitting smoking completely is one of the most important things they can do to have a healthy baby.

There are sometimes concerns that quitting smoking is too stressful for mum and baby, however, it is proven that people who stop smoking have less anxiety, depression and stress and in fact experience improved mood than those who continue to smoke. Likewise, a UK study also found women who receive support with stopping smoking do not have higher stress levels. Ensuring women are supported by a trained stop smoking practitioner is critical for making quitting successful. All of the NHS maternity services across north east London now have team members dedicated to support pregnant people to become smoke free.

## **Supporting pregnant women with quitting**

Many pregnant women who smoke can find quitting to be a significant challenge and need considerable support to stop successfully. The reason is that nicotine contained in tobacco while not particularly harmful (it is the tar and carbon monoxide in tobacco smoke that cause most of the health problems), it is highly addictive, and smoking is a chronic relapsing condition.

Pregnant women who smoke have an increased chance of quitting if they use a high level of behavioural support and nicotine replacement therapy (NRT). Research has found the

levels of nicotine delivered by NRT are not likely to compromise the foetus. NRT products are safer than continuing to smoke and can be particularly beneficial to women with high levels of tobacco dependence or significant cravings to smoke. Maternity care providers across north east London are currently playing an important role in supporting quitting among pregnant women. Helping women through their quit attempt in a non-judgmental and supportive manner and helping normalise the feelings and challenges they may be experiencing is an important part of supporting women with stopping smoking.

### **Support required from Primary Care**

All clinicians play an important role in addressing tobacco use and supporting pregnant people with stopping smoking. Pregnant people who smoke often feel they will be judged or feel like a failure for not being able to quit, likewise many they do not believe they will be able cope without smoking. Encouraging them through their quit attempt in a non-judgmental and supportive manner and helping normalise the feelings and challenges they may be experiencing is an important part of supporting pregnant people with stopping smoking. Identifying who smokes, advising them of the benefits of quitting and referring smokers to evidence-based stop smoking support is an important component of the role of primary care clinicians.

Research shows pregnant people who live with a smoker are six times more likely to smoke throughout pregnancy and those who manage to quit are more likely to relapse once the baby is born. If partners or significant others can also make a quit attempt then the pregnant woman stands a better chance of quitting herself.

### **Use of E-cigarettes**

Patients who report electronic cigarette (e-cigarette) use only, should be recorded as a non-smoker. Some pregnant people choose to use e-cigarettes during their pregnancy or may be already using e-cigarettes when they become pregnant. While licensed NRT products are the recommended option, if a pregnant person chooses to use an e-cigarette or has already stopped smoking with the use of an e-cigarette and feels that it helps them to stay smoke free, they should not be discouraged from doing so. E-cigarettes are fairly new products, most of which contain nicotine. We don't yet have evidence about the effects of longer-term use and any risks to unborn babies. The vapour produced by e-cigarettes contains some toxicants; these are either at much lower levels than those found in tobacco smoke or at levels not associated with serious health risk. Most importantly, unlike cigarettes, e-cigarettes do not burn tobacco and do not produce tar or carbon monoxide, which is particularly harmful to developing babies. E-cigarettes are not completely risk free, however based on the current reviews of evidence conducted by experts in the UK we definitely know that e-cigarettes are significantly less harmful to a pregnant person and their baby than smoking tobacco. There are also some heated tobacco products available, but these should not be viewed the same as e-cigarettes and they are not a safe option.

If you have any queries or concerns, please contact [Andrew.stock1@nhs.net](mailto:Andrew.stock1@nhs.net) who is the Smokfree Programme Manager for NHS North East London.