



## ANTEPARTUM CARE

### ANTE PARTUM CLINIC VISITS

## NICOTINE DEPENDENCE ASSESSMENT AND INTERVENTION

### KEY POINTS

1. Smoking cessation programs in pregnancy reduce the number of women who smoke and consequently reduce low birth weight and pre term birth.
2. Nursing advice and support in a hospital setting has been demonstrated to increase success in people quitting smoking<sup>7</sup>.
3. All women should be advised the WNHS is a smoke free organisation on admission or at the antenatal booking visit.
4. All antenatal women at the booking visit should have a [Fagerstrom Test](#) performed and documented on the MR215.10 form to identify those who need further support to stop smoking.
5. All antenatal women who smoke or are exposed to smoke should be provided with verbal and written information about the effect of smoking on their health, their pregnancy, for the neonate and others exposed to smoke.
6. All women or their partners who smoke or have quit smoking should be encouraged to make use of the counselling services available from the ['Quitline'](#) service(13 7848)
7. Ideally smoking cessation during pregnancy should be achieved without nicotine replacement therapy (NRT). However, for the women unable to quit on their own, the use of NRT should be encouraged.
8. After counselling, if the women decide to use NRT, advise them that intermittent dosing products are preferable (e.g. gum, lozenges, inhalers or sprays) as the intermittent plasma peaks of nicotine attained with these products may be preferable to the continuous nicotine plasma levels attained with patches. Transdermal patches may provide an option for a nauseated woman. The 16 hour patches are preferred as they allow a nicotine free period in the evening<sup>5</sup>.
9. There is limited evidence of the effectiveness of NRT in helping pregnant women stop smoking<sup>1</sup>. The main benefits of using NRT are the removal of the other toxins contained in tobacco smoke and the lower dose of nicotine delivered by NRT compared to tobacco smoke. Nicotine should be considered when a pregnant woman is nicotine dependent, otherwise unable to quit and when the likelihood and benefits of cessation outweigh the risks of NRT and potential continued smoking.<sup>1</sup>

## AIMS

- To identify women who smoke, who have recently quit, or who are exposed to tobacco smoke.
- To inform women of the benefits of quitting and the risks of smoking to their health, their pregnancy, for the neonate and other children.
- To provide verbal and written support for women who wish to quit smoking during pregnancy or those who have quit.
- To offer the woman's partner/support person information and referral to community services to assist in smoking cessation.
- To provide women with information and intervention methods/strategies to cease smoking.
- To inform women of strategies to prevent resumption of smoking during pregnancy and the post partum period.<sup>1</sup>
- To educate women that the Women and Newborn Health Service is a smoke free organisation.

## BACKGROUND INFORMATION

Cigarette smoke contains over 4000 toxins responsible for tobacco related diseases; with smoking being a leading cause of cancer. Nicotine itself has not been proven to be carcinogenic, but is associated with addictive properties.<sup>2</sup> Evidence identifies that smoking is associated with lung, laryngeal and oral cancers, pancreatic cancer, bladder and kidney cancers, cervical cancer, gastric cancer and acute myeloid leukaemia. It is linked to coronary heart disease, cerebrovascular disease, abdominal aortic aneurysm and subclinical atherosclerosis. Furthermore smoking is associated with acute respiratory illnesses and some chronic respiratory diseases.<sup>3</sup>

Women who smoke have an increased risk for delayed conception and a reduction in primary and secondary fertility.<sup>3,4</sup> Maternal smoking in pregnancy increases the risk for low birth weight neonates, pre term delivery, pre term premature rupture of the membranes, placental abruption and placenta praevia. Evidence indicates that there is an increased risk of fetal death and stillbirth, and sudden infant death syndrome (SIDS). It is also connected to a reduction in lung function in the neonate.<sup>3</sup> Passive smoking is associated with women having a premature birth, or a low birth weight neonate.<sup>3,4</sup>

Women who smoke are less likely to breastfeed and if they do breastfeed it is usually for a shorter duration. Smoking may increase the risk for failure of the combined oral contraceptive pill; and increase the risk of stroke and heart disease for women who use this form of contraception.<sup>4</sup>

Ideally smoking cessation should be achieved without NRT in pregnancy. However, the risk of using NRT is considered by expert clinical opinion to be less harmful to the fetus than tobacco smoking.<sup>1</sup> This is due to lower plasma nicotine concentrations with no additional exposure to polycyclic hydrocarbons and carbon monoxide. The use of all forms of NRT is associated with increased success for helping people quit smoking by 50 to 70%.<sup>5</sup>

## ANTENATAL ASSESSMENT FOR TOBACCO SMOKING

### **BOOKING VISIT OR INITIAL CONTACT WITH THE HOSPITAL**

Perform a [Fagerstrom Test for Nicotine Dependence \(FTND\)](#) questionnaire for nicotine dependence and document the results on the MR215.10 Nicotine Dependence Assessment form.

### **FOLLOW UP ASSESSMENT**

- At each antenatal visit ask the women who smoke, or who have ceased smoking, about their current smoking status. Document the findings on the MR215.10.
- Provide ongoing education about the effects of smoking in pregnancy. Offer additional intervention options to cease smoking if not already in place.

### **EDUCATION**

1. At the booking visit provide **verbal** information including:
  - The effect of smoking on their health and during pregnancy
  - The effect of passive smoking in pregnancy and for the neonate
  - Community resources for assistance to quit smoking
  - Ongoing assessment at each visit for women who are smoking or planning to quit.
  - KEMH is a smoke free organisation
2. Provide a woman who smokes or has a partner/support people who smoke with **written** information. This should include:
  - Information provided in the MR 220 Pregnancy Health Record to assist the woman with tips to cease smoking.

### **INTERVENTION STRATEGIES**

The 5 A's approach is a brief intervention strategy supported by a strong evidence base and designed to be used with all smokers regardless of their intention to quit smoking<sup>1</sup>. This includes<sup>1</sup>:

1. **Ask** – enquire about the woman's smoking status
2. **Advise** – about the benefit of quitting smoking
3. **Assist ( not ready)**
  - discuss the benefits of quitting and the risks of continued smoking
  - provide information about not exposing others to passive smoking
  - advise that help is available when they are ready.

#### **Assist (unsure)**

- Do motivational interviewing
- Explore their doubts
- Explore barriers to quitting
- Offer written information and referral to Quitline (13 7848).

### **Assist (ready)**

- Affirm and encourage.
- Provide a Quit Kit and discuss a Quit plan
- Discuss relapse prevention
- Offer referral to Quitline (13 7848) or a referral to other available services offering evidence based smoking cessation support.

### **Assist (Recent quitters)**

- Congratulate
- Discuss relapse prevention
- Review and reinforce the benefits of quitting
- Offer written information and referral to Quitline

#### **4. Arrange follow up for women attempting to quit if possible.**

### **REFERRAL TO THE QUITLINE**

- Offer all women and their partners who smoke a referral to the Quitline ( 13 7848).
- Complete the '[Quitline Referral Form](#)'. If the woman and her partner would both like a referral, then a form must be completed for each person.
- Ensure the correct phone number is written on the referral form.
- Fax the referral form to the Quitline on the number provided on the form.
- Ensure the woman has signed the form to provide consent prior to faxing it.

### **NICOTINE REPLACEMENT THERAPY INFORMATION**

Before any form of NRT is recommended

- Inform the woman not to smoke if using NRT products.
- Advise the women using NRT to discuss use, side effects and duration with the pharmacist prior to commencing use.
- The use of NRT should also be used in conjunction with counselling.
- NRT reduces the severity of tobacco withdrawal symptoms and increases the likelihood of smoking cessation.
- The decision to use NRT should be made as early as possible in pregnancy.
- Aim for use of NRT to be for only 2 – 3 months.
- If NRT is deemed clinically appropriate, an intermittent form of NRT e.g. gum, lozenge, inhalator, mouth spray, is preferable as it more closely mimics nicotine levels from smoking and delivers a lower dose.
- For nicotine dependent pregnant women who cannot tolerate oral forms of NRT, transdermal patches should be recommended and used for 16 hours rather than 24 hours.<sup>5</sup>
- NRT is found in breast milk; however the amount is relatively small and less dangerous than second hand smoke that the neonate would have been exposed to. Nicotine patches should not be used while breastfeeding. Intermittent dosing products (i.e. lozenge, inhalers) should be used while breastfeeding and women should breastfeed just before using the product to allow as long a time as possible between NRT use and feeding.

- Mothers of pre term infants are excluded from nurse/midwife initiated NRT and should be referred to a Medical Officer
- Common side-effects with NRT include dizziness, headache, nausea, vomiting, hiccups, indigestion, abdominal pain, myalgia, cough and vivid dreams (especially with the patch).
- There is currently no evidence to assure absolute safety in pregnancy, however the risk of heavy sustained smoking must be weighed against a shortened period of controlled levels of NRT use.<sup>1</sup> The woman should be provided with this information before commencing an NRT.

***Advise women using NRT to refer to individual instructions supplied with the medication. Some variation of use may occur with differing brand/trade medications.***

### **NRT - SOFT GUM**

Provide information to the women using gum:

- Avoid the use of more than one piece per hour for high dose gum. If using the 2mg strength, the use should not exceed more than 20 pieces of gum per day, or 10 pieces per day if using the 4mg strength.
- Chew the gum slowly, bite it about 10 times until a bitter taste occurs, then place it between the cheek and upper gum until the tingling subsides, then chew again (usually takes 30 minutes).
- The use of gum should be reviewed after 4-8 weeks, and the dose tapered. It may be helpful to use smaller pieces of gum or substituting ordinary gum when tapering the use.

### **NRT - LOZENGES(NOT AVAILABLE AT KEMH)**

Advise the woman using lozenges:

- Allow the lozenge to dissolve in mouth without chewing or swallowing. This takes about 20-30 minutes.
- Avoid eating or drinking while the lozenge dissolves.
- Frequency of lozenge use varies over a 12 week course – a pharmacist will discuss the regime.

### **NRT - TRANSDERMAL PATCHES**

Patches may be an alternative to gum or lozenges if the woman wishes NRT and suffers nausea. The decision should be made in consultation with a medical practitioner.

Inform the woman:

- Gum or lozenges are the recommended forms of NRT to use in pregnancy and breast feeding.
- Apply the patch to a non-hairy, clean, dry place on the upper arm. Use a difference place each day.
- Remove patches before going to bed.
- Patches should be stopped within 12 weeks of use.

## NRT – INHALER

Inform the woman:

- It is recommended that up to 6-12 cartridges can be use daily according to cravings or withdrawal symptoms for 8 weeks, and then gradually reduce the use over next 4 weeks until zero.
- 20 minutes of intense inhalation or puffing removes all nicotine from the device.
- Clinical use indicates similar concentration to gum use.
- This form of NRT may be useful for women who miss the hand-to-mouth actions.

## Bupropion and Smoking Cessation

The use of bupropion during pregnancy or lactation is listed as a precaution in MIMS (2016)<sup>6</sup>. More research is necessary in order to make recommendations for the use of it during pregnancy.<sup>1</sup>

### REFERENCES ( STANDARDS)

1. NSW Department of Health. [National clinical guidelines for the management of drug use during pregnancy, birth and the early development years of the newborn](#) Sydney: Commonwealth of Australia; 2014.
2. Zwar N, Bell J, McDonald C, et al. Nicotine and nicotine replacement therapy - the facts. **Pharmacist**. 2006;25(12):969-73.
3. US Department of Health and Human Services. **The health consequences of smoking: A report of the Surgeon General**. Atlanta2004.
4. British Medical Association. **Smoking and reproductive life. The impact of smoking on sexual, reproductive and child health**. London: BMA Publications; 2004.
5. Zwar N, Richmond R., Borland R.,Peters R,Litt M.,Bell J., Caldwell B., Ferretter I. **Supporting smoking cessation: a guide for health professionals**.Royal Australian College of Physicians. 2012
6. [MIMS Online](#).MIMS Australia. 2016
7. Rice VH,Hartmann-Boyce J, Stead LFR. Nursing Interventions for smoking cessation.[Cochrane Database of Systemic Reviews](#) 2013,Issue 8. Art No.:CD001188

National Standards – Clinical Care is Guided by Current Best Practice  
Legislation – Nil

Related Policies / Guidelines – Nil  
Other related documents – Nil

### RESPONSIBILITY

<b>Policy Sponsor</b>	Medical Director Obstetrics
<b>Initial Endorsement</b>	October 2004
<b>Last Reviewed</b>	March 2016
<b>Last Amended</b>	
<b>Review date</b>	March 2019

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