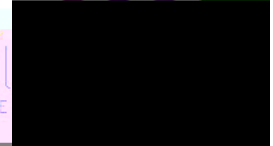
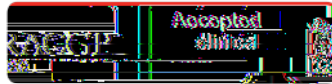




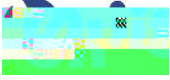
# Supporting smoking cessation during pregnancy - nicotine replacement therapy (NRT) *Health services version*



## Key messages

- Non-pharmacological interventions such as multi-session behavioural intervention (for example, as delivered by Quitline) are recommended as first-line therapy.
- Nicotine replacement therapy (NRT) in conjunction with behavioural intervention may be considered in women unable to achieve abstinence using non-pharmacological interventions alone.
-





## Ask, Advise, Help

The 'Ask, Advise, Help' model is an approach that promotes cessation and aims to connect people who smoke to best practice tobacco dependence treatment (such as multi-session behavioural intervention) (Appendix 1).

### 'Ask' – Asking about smoking status

At every antenatal appointment and during any hospital admission, ask all women about their tobacco smoking status and document this in the medical record.

Smoking status:

- Currently smokes
- Quit because of pregnancy (spontaneously quit/recently quit); document quit date
- Previously smoked; document quit date
- Never smoked

Offer carbon monoxide (CO) monitoring to all pregnant women if available. CO monitors are used to measure the amount of CO on a person's breath, and provide a motivational visual aid to encourage cessation and measure progress.,









### **Treatment recommendations:**

Treatment recommendations are based on HSI, taking into consideration previous quit attempts.

Pregnant women who have relapsed in the past or who experience cravings using one form of NRT alone may consider combination NRT (i.e. NRT patch and faster-acting NRT) under medical supervision.

Table 5: Treatment recommendation based on the level of nicotine dependence

#### **HSI Score**



Pregnant women can be referred to Quitline either via fax (1800 931 739) or an online referral form (visit [www.quit.org.au](http://www.quit.org.au)).

### **Nicotine replacement therapy (NRT) formulations**

#### *Faster-acting NRT*

Faster-acting formulations of NRT such as lozenge, gum or inhalator that allow intermittent dosing are recommended for women with lower levels of nicotine dependence, or women who have been successful in cutting down on smoking but have not been able to quit.

Faster-acting NRT may be useful when strong cigarette cravings occur (20).

Women should keep a diary to identify smoking triggers and to determine daily NRT use. This information is useful to inform and optimise smoking cessation strategies.

Eating and drinking, especially acidic beverages (e.g. coffee or soft drinks), should be avoided 15 minutes before and during the use of faster-acting NRT as reduced salivary pH may interfere with nicotine absorption through the oral mucosa (21).

The mouth spray contains a small amount of alcohol and is not considered first line therapy in pregnancy.

Table 6: Faster-acting NRT

<b>NRT formulation</b>	<b>Strengths</b>	<b>Recommended dose</b>	<b>Directions for use</b>
Lozenge	2mg 4mg	One lozenge every 1 to 2 hours (up to 15 lozenges per 24 hours)	
		Maximum of 12 (2mg) lozenges per 24 hours	





NRT formulation	Strengths	Recommended dose	Directions for use
Inhalator	15mg	The contents of one cartridge to be inhaled as required (up to six	<ul style="list-style-type: none"><li data-bbox="916 300 1461 360">• Gum containing aspartame is not suitable for women with PKU</li></ul>



### *Adverse effects*

NRT is generally safe and well tolerated. However, minor adverse effects may occur. Correct use of all NRT formulations is paramount, as many adverse effects may be due to poor technique.



## References

1. National Center for Chronic Disease Prevention and Health Promotion (US) Office on Smoking and Health. The health consequences of smoking-50 years of progress: a report of the surgeon general. Atlanta (GA): Centers for Disease Control and Prevention (US); 2014.
2. Scollo M, Winstanley M. Tobacco in Australia: facts and issues. Melbourne: Cancer Council Victoria; 2019.
3. Chamberlain C, O'Mara-Eves A, Porter J, Coleman T, Perlen SM, Thomas J, et al. Psychosocial interventions for supporting women to stop smoking in pregnancy. Cochrane Database of Systematic Reviews. 2017;2:CD001055.
4. National Center for Chronic Disease Prevention and Health Promotion (US) Office on Smoking and Health. How tobacco smoke causes disease: the biology and behavioral basis for smoking-attributable disease: a report of the surgeon general. Atlanta (GA): Centers for Disease Control and Prevention (US); 2010.
5. Bruin JE, Gerstein HC, Holloway AC. Long-term consequences of fetal and neonatal nicotine exposure: a critical review. Toxicological Sciences. 2010;116(2):364-74.
6. Wickström R. Effects of nicotine during pregnancy: human and experimental evidence. Current Neuropharmacology. 2007;5(3):213-22.
7. Coleman T, Chamberlain C, Davey MA, Cooper SE, Leonardi-Bee J. Pharmacological interventions for promoting smoking cessation during pregnancy. Cochrane Database of Systematic Reviews. 2015(12):CD010078.
8. Fant RV, Owen LL, Henningfield JE. Nicotine replacement therapy. Primary Care: Clinics in Office Practice. 1999;26(3):633-52.
- 9.





## Appendices

### Appendix 1: Summary of the smoking cessation pathway - 'Ask, Advise, Help' model

<b>Ask</b>	<p><b>Ask all women about their tobacco smoking status and document in the medical record</b></p> <p>“Do you currently smoke?”</p> <ul style="list-style-type: none"><li>• Currently smokes</li><li>• Quit because of pregnancy (spontaneously quit/recently quit) – Congratulate and continue pathway</li><li>• Previously smoked – Congratulate and encourage them to remain abstinent.</li><li>• Never smoked</li></ul> <p>Offer CO monitoring to all pregnant women if available.</p>
<b>Advise</b>	<p><b>Advise all pregnant women, who are currently smoking and those who have quit because of pregnancy, in a clear, strong, personalised and non-judgemental way.</b></p> <p>Provide information about:</p> <ul style="list-style-type: none"><li>• The importance of quitting completely, not just cutting down</li><li>• Benefits of quitting for the woman and her baby</li><li>• The most effective way to quit using evidenced-based interventions</li><li>•</li></ul>



	<ul style="list-style-type: none"><li>• Offer the woman's partner a referral to Quitline, if they currently smoke</li></ul>
--	---



**Appendix 2:** Examples of clinically significant drug interactions with cigarette smoking (16, 24-27).

The information presented is adapted from the references and is not exhaustive. Please refer to a pharmacist for further information or other drug interaction resources.

<b>Medicine</b>	<b>Effects of cigarette smoking</b>	<b>Recommendation post-smoking cessation</b>
Benzodiazepine	Reduced sedation mediated by nicotine stimulation of central nervous system	Monitor for clinical effectiveness and adverse effects. Consider dose



	measurable effect on prothrombin time	
--	---------------------------------------	--

Document title

Supporting smoking cessation during pregnancy - nicotine replacement therapy (NRT)





### Appendix 3: General Pharmaceutical Benefit Scheme (PBS) prescribing schedule for NRT

#### Eligibility for PBS subsidised NRT

- Patients who are ready to stop smoking can access up to 12 weeks of PBS subsidised NRT per year (24 weeks for an Aboriginal or Torres Strait Islander person).
- Patients must or be about to undertake behavioural intervention for smoking cessation at the commencement of the PBS subsidised NRT.
- PBS subsidised NRT brands include:
  - 21mg/24hr patch (Nicotinell® Step 1, Nicabate® P)
  - 14mg/24hr patch (Nicotinell® Step 2)
  - 7mg/24hr patch (Nicotinell® Step 3)
  - 25mg/16hr patch (Nicorette® 16hr Invispatch)
  - 4mg or 2mg lozenge (Nicotinell®)
  - 4mg or 2mg chewing gum (Nicotinell®)
- Only one PBS subsidised therapy for nicotine dependence at a time can be prescribed.
- For more information, refer to <http://www.pbs.gov.au/pbs/search?term=nm=pm=nd> [6.4110L To