



Community Care
OF NORTH CAROLINA

Pregnancy Medical Home Program Care Pathway

Management of Perinatal Tobacco Use

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Introduction

Tobacco use is associated with numerous poor reproductive health outcomes, including infertility, ectopic pregnancy, and spontaneous abortion.^{1,2} Tobacco use during pregnancy contributes to premature birth, low birth weight, stillbirth and Sudden Infant Death Syndrome (SIDS).¹ More than one in ten babies in NC are born to women who report using tobacco during pregnancy; in some counties, as many as 30% of babies are born to women who smoke.³ It is estimated that the infant mortality rate in NC would drop 10-20% if there were no tobacco use during pregnancy.⁴ Clinicians should offer effective interventions to pregnant smokers at the first prenatal visit as well as throughout the course of pregnancy.¹ These interventions should exceed minimal advice to quit.

The 5 A's model is an evidence-based, best practice intervention to address perinatal tobacco use:

- **ASK** all patients about their tobacco use status
- **ADVISE** the patient to quit tobacco with personalized messages for pregnant and parenting women
- **ASSESS** the patient's willingness to quit in the next 30 days
- **ASSIST** with pregnancy- and parent-specific self-help materials and social support
- **ARRANGE** to follow-up during subsequent visits

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Note

Pregnancy Medical Home Care Pathways are intended to assist providers of obstetrical care in the clinical management of problems that can occur during pregnancy. They are intended to support the safest maternal and fetal outcomes for patients receiving care at North Carolina Pregnancy Medical Home practices. This pathway was developed after reviewing the Society for Maternal-Fetal Medicine and the American College of Obstetricians and Gynecologists resources such as practice bulletins, committee opinions, and Guidelines for Perinatal Care as well as current obstetrical literature. PMH Care Pathways offer a framework for the provision of obstetrical care, rather than an inflexible set of mandates. Clinicians should use their professional knowledge and judgment when applying pathway recommendations to their management of individual patients.

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1 | Tobacco Use Screening in the Prenatal Clinic Setting

The first “A”, ASK, is included on the Pregnancy Medical Home risk screening form:

- PMH Risk Screening Form is available in both [English](#) and [Spanish](#)
- Complete the PMH Risk Screening Form with each new OB patient at the beginning of the prenatal visit (per DMA Policy 1E6, Section 5.3.1)
- Question 7 on the “patient” side of the form is the standardized tobacco use screening question from the 5 A’s
- A clinician (nurse, nurse practitioner, midwife, physician assistant or physician) should review both sides of the screening form with the patient before the patient leaves the first visit

Ask about perinatal tobacco use in a neutral, non-judgmental manner in order to elicit an honest response and signal the provider’s willingness to help the patient quit (if applicable). Consider documenting tobacco use status just as one would a vital sign.

- Provide education and resources to all staff members
- Resources for practices are available on the QuitlineNC website under “[Resources for Your Practice](#)” and on the You Quit, Two Quit website under “[Health Professionals](#)” and “[Guide for Counseling Women Who Smoke](#)”
- Determine clinic staff’s roles and responsibilities for conducting tobacco use screening and treatment
 - Identify which clinic team members are responsible for screening patients
 - Identify which clinicians provide cessation counseling and follow-up
- Track adherence to screening and cessation counseling goals

2 | Management of Current Tobacco Use

Tobacco users should receive a brief intervention each time they come in contact with the health system: “every patient, every visit.”

The intervention can be assistance with quitting for those ready to quit or motivational strategies that encourage quitting for those who are not ready.

Provide the patient with clear, strong, personalized advice to quit (the second A, ADVISE).

- **Clear:** “My best advice for you and your baby is for you to quit smoking.”

- **Strong:** “I need you to know that quitting tobacco is one of the most important things you can do to protect your baby and your own health.”
- **Personalized:** Impact of tobacco use for the baby, the family, and the patient’s well-being

Assess the patient’s willingness to quit in the next 30 days (the third A, ASSESS).

1. For patients who **are ready** to quit in the next 30 days:
 - Encourage the use of problem-solving methods and skills for cessation
 - Where/Why/Who: Encourage the patient to identify where they use tobacco, why they use tobacco, and with whom they use tobacco
 - Encourage patients to identify small changes that they can make that will help them quit. Some strategies that women find helpful include:
 - Setting an actual quit date
 - Counting down or reducing the number of cigarettes smoked each day
 - Removing all tobacco products from the home and car
 - Brushing their teeth immediately after a meal
 - Taking a walk during breaks at work
 - Chewing gum
 - Help patients think of ways that they can manage withdrawal symptoms and stress proactively
 - Arrange for support in the tobacco user’s environment, such as proactive referral to QuitlineNC
 - To provide a proactive fax referral to QuitlineNC, complete the form (available in both [English](#) and [Spanish](#)) and fax to 1-800-483-3114
 - Provide pregnancy and/or parent specific self-help tobacco cessation materials
 - See Appendix B for recommended patient education materials
2. For patients who **are not ready** to quit in the next 30 days:
 - Provide brief counseling using a Motivational Interviewing approach that addresses the 5 R’s (relevance, risk, rewards, roadblocks, repetition)¹
 - This approach will uncover any ambivalence about tobacco use, strengthen a patient’s stated reasons to quit, and provide support for any actions she is willing to take toward reducing harm and/or quitting
 - **RELEVANCE:** Help patient figure out the relevant reasons to quit, based on their health, environment, individual situation
 - **RISKS:** Encourage patient to identify possible negative outcomes to continuing to use tobacco
 - **REWARDS:** Encourage patient to identify possible benefits to quitting
 - **ROADBLOCKS:** Work with patient to identify obstacles to quitting and potentially how to overcome them
 - **REPITITION:** Address the 5Rs with patients at each visit
 - Periodically assess tobacco use status among all patients and, if the patient continues to use tobacco, encourage cessation
 - Collaborate with Pregnancy Care Managers and other health professionals caring for the patient to address the patient’s tobacco use:

- Share with the Pregnancy Care Manager how the prenatal care provider (or other health professional) is providing tobacco cessation counseling, treatment and/or other interventions
- Share goals and activities focusing on the patient's tobacco use
- Discuss how the Pregnancy Care Manager can support the provider's clinical care plan to address tobacco cessation

All smokers (and patients with asthma) ages 19-64 should receive pneumococcal vaccination, according to the Advisory Committee on Immunization Practices (ACIP).⁵

Whenever possible, a woman who smokes (or has asthma) should receive the pneumococcal vaccine *before* pregnancy. However, the pregnant patient who is a smoker (or asthmatic) and who has not been previously immunized should be offered the pneumococcal vaccine. Immunization can occur either during pregnancy or in the immediate postpartum period. While prenatal safety data are limited, the vaccine appears to be safe during pregnancy.

3 | Supporting Patients Who Quit During Pregnancy and Preventing Postpartum Relapse

65-80% of women who quit using tobacco during pregnancy start smoking again before the baby reaches one year old.⁶ 45% relapse to tobacco use by 2-3 months postpartum, and 60-70% relapse by 6 months.

Factors that lead to postpartum relapse include^{7, 8}:

- Return of triggers (caffeine, alcohol)
- Spouse, family & friends who smoke
- Sleep deprivation
- Increased stress
- Weight concerns
- Less social pressure to stay quit
- Underdeveloped coping strategies & overconfidence
- Time-limited restriction on tobacco use during pregnancy

Start relapse prevention counseling in the third trimester to prevent postpartum relapse:

- Focus on benefits of quitting for the woman's own health
- Emphasize women's health risks (not just fetus)
 - Highlight harms associated with second-hand smoke for infant

- Involve pediatric providers, including pediatric care managers, well-child, WIC, early intervention, etc. to support the woman's efforts to abstain from tobacco use in the postpartum period
- Arrange for prescription for nicotine replacement therapy immediately postpartum, instead of at outpatient postpartum visit (if appropriate)

4 | Pharmacotherapy During Pregnancy and Lactation

Behavioral interventions should always be the first line of treatment for pregnant smokers.¹

- There are concerns about safety of pharmacotherapies during pregnancy, particularly nicotine replacement, and it is not clear if pharmacotherapy is effective during pregnancy¹
- Pharmacotherapy may be necessary for pregnant women who are heavy smokers, in addition to more intensive behavioral counseling¹

While no individual therapy has been shown to be superior in efficacy, bupropion should be used as a first-line pharmacotherapy option during pregnancy based on its safety profile.

Pharmacotherapy is an option for postpartum women who are not lactating and for whom behavioral interventions have proved insufficient.

- Nicotine replacement therapy or a non-nicotine medication like bupropion or varenicline in combination with counseling may be particularly useful for heavy smokers, especially when provided before discharge from the hospital
- Nicotine replacement increases the likelihood that a person's quit attempt will succeed by 50 to 70 percent⁹

E-cigarettes are not FDA-approved as smoking cessation devices.

There is insufficient evidence about the safety and efficacy of e-cigarettes as a smoking cessation aid or their use in pregnancy.

There is limited information about the use of pharmacotherapy by lactating women.

Use of nicotine replacement therapy during lactation does result in nicotine passing into breastmilk.

- Nicotine patch

- The highest dose of the nicotine patch (21 mg), results in the equivalent of 17 cigarettes in breastmilk⁸
- The 14 mg and 7 mg patches result in proportionately lower amounts of nicotine transferring into breastmilk¹⁰
- Nicotine gum/lozenge
 - When using nicotine gum or lozenge, maternal plasma concentrations of nicotine are highly variable depending upon the number of pieces chewed and the frequency of use¹⁰
- Bupropion (Zyban[®], Wellbutrin[®])
 - There are some concerns about reductions in milk supply during the onset of bupropion¹¹
- Varenicline (Chantix[®])
 - There is a lack of information about varenicline's safety during lactation, but concerns have been expressed about the drug's relatively long half-life (~24 hours)¹¹

Table 1

FDA Approved Pharmacotherapies for Adults	FDA Pregnancy Category ¹¹	Lactation Risk Category ¹¹
Nicotine Patch	D	L2: Safer
Nicotine Gum	D	L2: Safer
Nicotine Oral Inhaler (Rx Only)	D	L2: Safer
Bupropion (Zyban [®] , Wellbutrin [®])	C	L3: Probably Safe
Varenicline (Chantix [®])	C	L4: Possibly Hazardous

5 | References

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6 | Appendix A: Resources for Providers

www.YouQuitTwoQuit.org

You Quit, Two Quit is the UNC Center for Maternal and Infant Health’s program that provides perinatal tobacco cessation technical assistance in NC and throughout the US. The You Quit, Two Quit website provides information about tobacco cessation geared towards health care providers, women, and their family and friends. You can find [patient education materials](#), [additional training](#), and [updated information](#) about perinatal tobacco use and cessation.

There are two resources on the website developed specifically for providers working in outpatient settings on providing comprehensive counseling and integrating tobacco use screening and cessation in clinic settings:

- [Counseling Women Who Use Smoke: A Guide for Helping to Eliminate Tobacco Use and Exposure for Women](#)
 - This guide, developed by the Women and Tobacco Coalition for Health, in collaboration with the NC DHHS Women’s Health Branch, the NC DHHS Tobacco Prevention and Control Branch, and You Quit, Two Quit, provides detailed information on screening women throughout the life course for tobacco use and exposure and how to provide cessation counseling.
- [Blueprint for Implementing Clinically-Based Tobacco Cessation Programs](#)
 - The Blueprint, funded by the US DHHS Office of Women’s Health, provides step-by-step information on integrating tobacco use screening and cessation counseling into office systems. The Blueprint includes a special focus on working with low-income women of reproductive age.

www.QuitlineNC.com

The Quitline NC website provides information about the tobacco quitline, web-based tobacco cessation coaching, and a wide variety of resources for health care providers, including information on counseling for change and motivational interviewing, working with different populations, and materials for patients.

[CDC Information for Health Care Providers and Public Health Professionals: Preventing Tobacco Use During Pregnancy](#)

This [CDC website](#) for health care providers and public health professionals provides up-to-date information on tobacco use during pregnancy, including surveillance data disaggregated by race and ethnicity, as well as insurance status and timing of prenatal care initiation. The site also provides information on the use of e-cigarettes during pregnancy.

7 | Appendix B: Patient Education Materials

The following three patient education materials are free from the NC DHHS Division of Public Health Women's Health Branch. For additional patient resources, please visit:

<https://youquittwoquit.org/patient-education-materials>.

If You Smoke and Are Pregnant

[This booklet](#) was developed by the North Carolina Healthy Start Foundation and the North Carolina Division of Public Health. Information in this booklet includes the health benefits for the baby as a result of quitting smoking before or during pregnancy as well as after pregnancy. It also contains facts about the physical effects of quitting smoking on the woman as well as resources for support.

Oh Baby! We Want to Keep You Safe from Secondhand Smoke

[This booklet](#), also developed by the North Carolina Healthy Start Foundation and the North Carolina Division of Public Health, provides information about secondhand and thirdhand smoke. Additionally, the potential harms of secondhand smoke exposure are discussed, as well as strategies to limit exposure while pregnant and after the baby is born.

You Quit Two Quit: A Guide to Help New Mothers Stay Smoke-Free

[This booklet](#) was developed by the Center for Maternal and Infant Health at the University of North Carolina at Chapel Hill with funding from the North Carolina Health and Wellness Trust Fund. It is geared towards new mothers and focuses on the triggers that may cause them to start smoking again if they previously quit. It also provides information on the benefits of not smoking for both mothers and babies.

These materials can be ordered at no cost from the NC DHHS Division of Public Health Women's Health Branch using the order form available here:

<https://whb.ncpublichealth.com/Forms/051520-WHB-PubForm.pdf>.

8 | Appendix C: Billing for Tobacco Cessation Counseling

Most insurance programs, including Medicaid and Medicare, the North Carolina State Health Plan, and Blue Cross Blue Shield of North Carolina, reimburse healthcare providers for providing individual tobacco cessation counseling.

Physicians, nurse practitioners, certified nurse midwives, and health departments can bill North Carolina Medicaid for the following CPT codes:

- **99406:** Intermediate visit (3-10 minutes)
- **99407:** Intensive visit (over 10 minutes)

These CPT codes can be billed “incident to” the physician by the following professional specialties: licensed psychologists, licensed psychological associates, licensed clinical social workers, licensed professional counselors, licensed marriage and family counselors, certified nurse practitioners, certified clinical nurse specialists, licensed clinical addictions specialists or certified clinical supervisors. Registered nurses in local health departments may also bill incident to the physician.

An appropriate tobacco-related diagnosis code, such as ICD-9 code 305.1 (tobacco abuse), must be submitted with the CPT code. Tobacco cessation counseling may be billed:

- In addition to prenatal care services, including the global fee
- In addition to alcohol and/or substance (other than tobacco) abuse structured screening and brief intervention services on the same date of service

Patients who are enrolled in Medicaid for Pregnant Women in North Carolina are only eligible to receive tobacco cessation counseling in the postpartum period if this is a continuation of treatment provided and documented in the prenatal period. Tobacco cessation counseling initiated in the postpartum period is not covered for patients in this category.

Tobacco cessation group treatment and classes are not currently covered by NC Medicaid.