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*Pediatrics* 2005;115:750-760  
DOI: 10.1542/peds.2004-1055

**This information is current as of March 21, 2005**

The online version of this article, along with updated information and services, is located on the World Wide Web at:

<http://www.pediatrics.org/cgi/content/full/115/3/750>

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American Academy of Pediatrics

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## State-of-the-Art Interventions for Office-Based Parental Tobacco Control

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**ABSTRACT.** Parental tobacco use is a serious health issue for all family members. Child health care clinicians are in a unique and important position to address parental smoking because of the regular, multiple contacts with parents and the harmful health consequences to their patients. This article synthesizes the current evidence-based interventions for treatment of adults and applies them to the problem of addressing parental smoking in the context of the child health care setting. Brief interventions are effective, and complementary strategies such as quitlines will improve the chances of parental smoking cessation. Adopting the 5 A's framework strategy (ask, advise, assess, assist, and arrange) gives each parent the maximum chance of quitting. Within this framework, specific recommendations are made for child health care settings and clinicians. Ongoing research will help determine how best to implement parental smoking-cessation strategies more widely in a variety of child health care settings. *Pediatrics* 2005;115:750-760; tobacco, smoking, adolescent, child, parent, pediatrician, nicotine-replacement therapy, NRT, nicotine, tobacco dependence, guideline, clinical practice guideline, environmental tobacco smoke, secondhand smoke, SHS.

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Accepted for publication Aug 26, 2004.

doi:10.1542/peds.2004-1055

The Center for Child Health Research is an independent operating branch of the American Academy of Pediatrics. The content of this article does not necessarily reflect the views of the Center for Child Health Research or the American Academy of Pediatrics.

No conflict of interest declared.

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ABBREVIATIONS. SHS, secondhand smoke; ETS, environmental tobacco smoke; NRT, nicotine-replacement therapy; PHS, US Public Health Service; AAP, American Academy of Pediatrics; OR, odds ratio; CI, confidence interval.

Smoking remains the leading cause of preventable morbidity and mortality in the United States and a hazardous environmental exposure to children.<sup>1</sup> Unfortunately, more than one quarter of children have at least 1 parent who smokes cigarettes.<sup>2</sup> Secondhand smoke (SHS), also known as environmental tobacco smoke (ETS), is a complex mixture of >4000 chemical compounds including 43 known carcinogens; there is no safe level of exposure to SHS given the adverse health effects associated with even low levels of exposure.<sup>3</sup> The smoke generated from a single cigarette in a large room causes the air to fail the national minimum standard set by the Clean Air Act of 1994.<sup>4</sup> Based on parent self-reported exposure of their own children, national estimates of child exposure to SHS range from 25% to 43% of all children in the United States.<sup>5-78</sup> Children are unable to avoid exposure, because they are physically unable to remove themselves from the smoke (as in the case of infants) or they depend on parents for food and shelter for many years and cannot advocate effectively for clean air in the face of parental tobacco addiction. We briefly outline the argument for child health care clinicians to treat parents who smoke, detail the current state of the art for effectively treating adult tobacco dependence, and discuss the literature specific to parental smoking cessation. We conclude by giving child health care clinicians specific methods and tools for evidence-based intervention with parents who smoke. We focus on tobacco that is smoked rather than smokeless tobacco because of the strength and quantity of the evidence for intervention with parents in child health care settings.

## HEALTH BURDEN OF PARENTAL SMOKING ON CHILDREN

In addition to harming themselves, parents who smoke subject their children to a range of specific prenatal, postnatal, and long-term health risks (Table 1).<sup>3,9-42</sup> Each year, >5000 children die from tobacco exposure, 3 times the number caused by all childhood cancers combined.<sup>43,44</sup> In addition, smoking-related materials are the leading cause of fire-related

**TABLE 1.** Specific Health Effects of Prenatal and Postnatal Exposure to Tobacco Smoke

Prenatal	Postnatal	
	Short-Term	Longer-Term
Miscarriage	Increased rates of pneumonia, otitis media, asthma, and asthma exacerbations	Decreased lung function
Premature delivery		Dental decay
Low birth weight	Sudden infant death syndrome	Increased progression of atherosclerosis
Stillbirth	Respiratory complications under anesthesia	Increased rates of malignancies
Sudden infant death syndrome	Increased rates of invasive meningitis and colic	
Decreased lung function		
Neurobehavioral problems		
Developmental delay		

deaths, accounting for ~250 child deaths each year.<sup>43,45</sup>

Beyond the risks from SHS, parental smoking has a significant impact on smoking initiation; children and adolescents who are exposed to smokers in their household are 3 times more likely to initiate smoking themselves.<sup>46</sup> It is important to note that parental quitting is associated with lower adolescent smoking rates.<sup>47</sup> Increased access to cigarettes, behavioral modeling of parent behavior, and increased nicotine receptors in the brain due to tobacco smoke exposure might explain increased rates of experimenting with cigarettes and smoking initiation by children in families in which a parent smoked during pregnancy and continues to smoke.<sup>47-52</sup>

#### ECONOMIC BURDEN OF PARENTAL SMOKING

The burden of parental smoking includes the economic impact from expenditure of family resources on cigarettes instead of other essential needs such as schooling, housing, and nutrition. Smoking remains concentrated among the poor and less well educated, precisely the families who can least afford the financial burden.<sup>53</sup> For instance, a parent who smokes 1 pack of cigarettes a day spends, on average, more than \$1800 per year after taxes, worsening the cycle of poverty for many of these families.

In the United States, the cost to society of adult smoking and exposure of children has been estimated at \$157 billion in annual health-related economic losses for the years 1995-1999.<sup>54</sup> This economic calculation includes health care costs for treating ill smokers, lost productivity from tobacco-related illness, and some effects of SHS.<sup>55</sup> The direct medical expenditures and loss-of-life costs for SHS exposure of children alone exceeds \$10 billion per year.<sup>43</sup> Treating tobacco dependence with any of the US Public Health Service (PHS)-recommended approaches<sup>56</sup> is one of the most cost-effective of all known health care interventions.<sup>57-59</sup>

#### THE EVIDENCE FOR TOBACCO-DEPENDENCE TREATMENT IN ADULTS

The *Treating Tobacco Use and Dependence Clinical Practice Guideline*,<sup>56</sup> published by the PHS in 2000, provides a framework for provision of the effective interventions for adults who use tobacco. The tobacco treatment guideline is based on an extensive body of evidence that was developed in numerous and varied clinical settings. Overall, the PHS guideline states that clinicians and health care delivery

systems should "institutionalize the consistent identification, documentation, and treatment of every tobacco user seen in a healthcare setting."<sup>56(p4)</sup> The guideline encourages clinical offices to use office-wide systems for smoker identification, to offer brief counseling interventions to all smokers, tailored to their circumstances, and to offer nicotine-replacement therapies (NRTs) for those smokers who are ready to make a cessation attempt. Having an office system in place that identifies smokers at every visit doubles cessation rates (Table 2).<sup>56</sup>

The use of a brief counseling intervention greatly improves the number of cessation attempts by smokers. Table 3 shows the estimated abstinence rates by length of counseling contact, with the optimal effect achieved with  $\geq 10$  minutes.<sup>56</sup> However,  $< 3$  minutes of counseling still produces significant increases in cessation compared with no counseling and improves the likelihood that the clinician will perform the intervention. By using the following 5 A's to organize the intervention, clinicians can ensure that they are delivering the recommended treatment modalities to those who smoke:<sup>56</sup>

1. Ask whether he/she uses tobacco products;
2. Advise those who use tobacco to quit in a strong, clear, and personalized way;
3. Assess his/her willingness to quit using tobacco at the present time; if the smoker is not willing to make a quit attempt at the present time, then try to increase motivation to quit at a later time;
4. Assist in making a quit attempt, if the smoker is willing to attempt cessation, by providing brief counseling, prescription of pharmacotherapy, and provision of written self-help materials; and
5. Arrange follow-up contacts to prevent the smoker from relapsing to tobacco use and enroll the smoker in telephone-quitline counseling or a local program.

Counseling by physicians significantly improves cessation rates, emphasizing the need to include physicians in office-based cessation interventions (Table 4).<sup>56</sup> Most health care clinicians have limited time

**TABLE 2.** Efficacy of Office Systems to Identify Smokers at Each Clinical Encounter (Meta-analysis of 3 Studies)

	OR (85% CI)	Cessation Rates (95% CI)
No system	1.0	3.1%
System	2.0 (0.8-4.8)	6.4% (1.3-11.6)

**TABLE 3.** Estimated Abstinence Rates by Length of Contact (*n* = 43 Studies)

Length Contact	Estimated Abstinence Rate (95% CI)	Estimated OR (95% CI)
No contact	10.9	1.0
Counseling for <3 min	13.4 (10.9, 16.1)	1.3 (1.01, 1.6)
Counseling for 10 min	22.1 (19.4, 24.7)	2.3 (2.0, 2.7)

for cessation counseling. Therefore, complementary strategies are extremely important to minimize clinician counseling burden while still maximizing the chances of smoking cessation. A proven strategy to increase smoking-cessation rates is to have >1 clinician type deliver the brief interventions.<sup>56</sup> If one type is the physician, the second type might be a nurse, physician's assistant, clinical assistant, or social worker (Table 5).<sup>56</sup> Using a team approach might focus physician effort on advising the smoker to quit, with immediate follow-up by a nurse or other clinical assistant to provide additional counseling, pharmacotherapy instructions, and follow-up. Because many clinicians do not have the resources or skills to deliver extended counseling interventions, they might consider the use of videotapes that can minimize the burden on nurses or clinical assistants by providing skill training and role models for smoking cessation.<sup>60,61</sup>

Involving >1 clinician and delivering even 10 minutes of face-to-face counseling may be beyond the resources of some health care settings. Enrolling smokers in multisession telephone counseling as an adjunct to office-based counseling ensures that smokers receive professional, evidence-based, ongoing counseling services that may not be possible otherwise.<sup>56,62</sup> Quitlines have been shown to be effective in helping adults quit smoking and are currently available in 38 states.<sup>63-65</sup> In addition, proactive telephone quitlines establish contact with a larger percentage of smokers who are initially referred compared with reactive quitlines.<sup>63,66</sup> In February 2004, the PHS committed to establishing a national quitline network that will be federally subsidized and available by referral in all 50 states.

The use of pharmacological aids roughly doubles quit rates above those achieved with counseling alone (Table 6). Use of NRT has grown with the introduction of new NRT products and the subsequent move to over-the-counter sales.<sup>67</sup> There are several products that are available without a prescription, including nicotine patches, gum, and lozenges. The lozenges were not yet available when the clinical practice guideline was written, but they provide ~25% more nicotine delivery than nicotine gum and have been shown to be effective in short-term abstinence, including among smokers who have used pharmacotherapy for prior cessation at-

tempts.<sup>68</sup> Bupropion has been used as an antidepressant but also has demonstrated efficacy for smoking cessation.<sup>56</sup> Fig. 1 provides an overview of how NRT and bupropion therapy are prescribed.

Many smokers will not be ready to make a quit attempt at any given visit.<sup>69</sup> For smokers who do not express a willingness to quit, the 5 R's can be an effective tool to motivate them to begin thinking more critically about their smoking, possibly leading to a quit attempt in the future:

1. Relevance: ask the smoker why quitting is personally relevant to him or her;
2. Risks: ask the smoker to identify the consequences of his or her smoking;
3. Rewards: ask the smoker to identify the benefits that he or she might get from quitting;
4. Roadblocks: ask the smoker to identify what some of his or her barriers are to quitting; and
5. Repetition: these questions should be repeated at every clinical encounter.<sup>56</sup>

For those smokers who have quit recently, the PHS guideline recommends congratulating success, encouraging continued abstinence from tobacco use, and continuing discussion about the benefits of cessation and any challenges to abstinence.

#### OPPORTUNITY TO INTERVENE IN CHILD HEALTH CARE SETTINGS

Given the clinical effectiveness and benefit of smoking-cessation interventions, they should be delivered at every clinical encounter. The PHS guideline specifically recommends offering interventions to parents to limit children's exposure to SHS.<sup>56</sup> The child health care setting provides access and unique teachable moments to motivate parents to quit smoking because of the number of contacts a parent has with his or her child's pediatric health care provider and the strong link between SHS and chronic and acute childhood illness. Many parents do not have any other access to a primary care provider or services that could help them try to quit smoking.<sup>66,70,71</sup> In 1 recent Massachusetts study, <1 in 5 parents had ever had any exposure to smoking-cessation programs or telephone counseling.<sup>66</sup> Child health care clinicians, through the schedule of primary care visits, are often in a position to intervene with parental

**TABLE 4.** Estimated Abstinence Rates by Clinician Type (*n* = 29 Studies)

Type of Clinician	Estimated Abstinence Rate (95% CI)	Estimated OR (95% CI)
No clinician	10.2	1.0
Nonphysician clinician	15.8 (12.8, 18.8)	1.7 (1.3, 2.1)
Physician clinician	19.9 (13.7, 26.2)	2.2 (1.5, 3.2)

**TABLE 5.** Estimated Abstinence Rates by Number of Clinician Types (*n* = 37 Studies)

Number of Clinician Types	Estimated Abstinence Rate (95% CI)	Estimated OR (95% CI)
No clinician	10.8	1.0
One clinician	18.3 (15.4, 21.1)	1.8 (1.5, 2.2)
Two clinician types	23.6 (18.4, 28.7)	2.5 (1.9, 3.4)
Three or more clinician types	23.0 (20.0, 25.9)	2.4 (2.1, 2.9)

**TABLE 6.** Effectiveness of First-Line Medications: Results From Meta-analyses

Medication	No. of Studies	OR	95% CI
Nicotine patch	32	1.9	1.7–2.2
Nicotine gum	18	1.5	1.3–1.8
Nicotine inhaler	4	2.5	1.7–3.6
Nicotine spray	3	2.7	1.8–4.1
Bupropion SR	4	2.1	1.5–3.0

smokers in a repeated and consistent manner over the course of many years.<sup>72</sup> For parents without their own primary care provider, their child's doctor may be the only access point they have to pharmacological advice and treatment for tobacco addiction.

The American Academy of Pediatrics (AAP) and American Academy of Family Physicians have policy statements that support parental smoking cessation in the context of child health care settings.<sup>73–75</sup> The AAP states that a "tobacco-free environment is imperative, because tobacco is a major health hazard to infants, children, adolescents, and their families."<sup>74(p797)</sup> With specific regard to parents who smoke, the policy statement recommends that the dangers of SHS and the risk of role-modeling tobacco use be "discussed and reinforced with written information and cessation referrals," and that "repeated nonjudgmental efforts to encourage the parent to quit smoking (accompanied by appropriate referral)" be made.<sup>74</sup> The pediatric clinician is also encouraged to provide relapse prevention for family members who quit, particularly to women who quit during pregnancy.<sup>74</sup> *Pediatric Environmental Health*, a handbook for clinicians published by the AAP in 1999 and revised in 2003, gives suggestions about implementing some of the recommended parental smoking-cessation and SHS reduction strategies within the pediatric setting.<sup>76</sup>

One third of women spontaneously quit after learning of their pregnancy, and according to meta-analyses, an additional 20% quit with behavioral assistance during pregnancy.<sup>77–79</sup> However, more than half of those who quit resume smoking within 6 months postpartum.<sup>80</sup> Relapse remains high even in the context of behavioral interventions during pregnancy and postpartum.<sup>81–83</sup> These high rates of smoking recidivism may be due to problems with longer-term continuity of cessation support once the infant is born.<sup>80,84</sup> During this postpartum period of maximal risk of relapse to smoking, obstetrical-setting support tapers off, whereas the child health care setting has a minimum of 5 contacts with the parent, providing the opportunity to reduce relapse and support new cessation. Additionally, many mothers seen in the context of their child's health care visit

will be planning to have another child or currently be pregnant. The access that pediatric health care clinicians have to women before pregnancy and in their first trimester creates unique opportunities to address smoking in this population. Interventions with pregnant and postpartum smokers are well summarized in the PHS guideline, should include more intensive counseling than minimal advice, and can follow a similar 5 A's approach that is used for the general adult smoker.<sup>56</sup>

### BARRIERS TO ADDRESSING PARENTAL SMOKING

Child health care clinicians cite a number of barriers to addressing parental smoking cessation, including lack of time, lack of confidence in their ability to give smoking-cessation advice, and concern about negative reactions from parents.<sup>85–87</sup> In 1 study, 45% of pediatricians surveyed thought that parents' lack of interest in quitting smoking was a barrier to parental smoking-cessation counseling, and 39% felt that parents would ignore their advice.<sup>88</sup> Some pediatricians mentioned lack of skills (26%), reimbursement (20%), and negative reaction from parents (20%) as other barriers.<sup>88</sup> Another study found that 69% of pediatricians surveyed felt that prescribing or recommending NRT was the responsibility of another clinician.<sup>89</sup>

Many of these arguments against fully engaging parental tobacco use in the child health care setting have been successfully addressed. The long-standing belief that addressing smoking with parents will harm the therapeutic alliance proves incorrect, because the vast majority of smokers tend to give higher satisfaction ratings to pediatric clinicians who address their smoking and offer help.<sup>85,90–92</sup> In fact, most parents believe that it is the responsibility of the pediatrician to counsel them on matters that affect their child's health and that they ought to do more counseling regarding smoking cessation.<sup>85,90,93</sup> Although pediatric health care clinicians generally do not have time to provide more than brief counseling, evidence-based telephone counseling is currently available in 38 states, with a free national quitline planned that can provide more extensive counseling to those parents interested in receiving additional assistance.<sup>94</sup>

### STUDIES AND CURRENT PRACTICES IN CHILD HEALTH CARE SETTINGS

There have not yet been any randomized, controlled trials in child health care settings to study implementation of the current PHS tobacco treatment guideline, but there have been a number of surveys to determine current practices and studies of other tobacco interventions. From national surveys

Quick Guide to Tobacco Pharmacotherapies for Child Healthcare Clinicians		
Dosing	Instructions	
<b>NICOTINE REPLACEMENT OPTIONS</b>		
<b>NICOTINE PATCHES (OTC)</b> (Generic also available by prescription)		
15 mg	Initial 1 patch/16 hrs MAX Same	Treatment Duration: 8 weeks. At the start of each day, place a fresh patch on a relatively hairless area of skin between the waist and neck. If sleep disruption occurs, the patch may be worn only during waking hrs.
21 mg	Initial 1 patch/24 hrs	
14 mg	MAX Same	
7 mg		
<b>NICOTINE GUM (OTC)</b>		
2 mg	Initial 1 piece/1-2 hrs	Treatment Duration: 8-12 wks. Chew gum slowly until the taste of mint or pepper occurs. Then park the gum between the cheek and gum to permit absorption through the oral mucosa. Repeat and continue for approx. 30 min. Avoid acidic beverages (coffee, juice, soda) or eating for 15 min before and during use.
4 mg	MAX 24 pieces/24 hrs	
<b>NICOTINE NASAL SPRAY (prescription)</b>		
10 mg/ml	Initial 1-2 doses/hr MAX 5 doses/hr or 40 doses/day	Treatment Duration: 3-6 mos. One spray to each nostril (1 mg total nicotine). Avoid sniffing, inhaling, or swallowing during administration as irritating effects are increased. Tilt the head back slightly during administration.
<b>INHALER (prescription)</b>		
10 mg/ cartridge	Initial 6-16 cartridges/day MAX 16 cartridges/day	Treatment Duration: 3-6 mos. Temperatures < 40°F decrease nicotine delivery. Avoid acidic beverages or eating for 15 min before use.
<b>LOZENGE (OTC)</b>		
2 mg	1 loz/1-2 hrs (wks 1-6)	Treatment Duration: 12 wks. Avoid eating/drinking for 15 minutes before use. Suck lozenge until it dissolves. Do not bite, chew or swallow lozenge.
4 mg	1 loz/2-4 hrs (wks 7-9)	
	1 loz/4-8 hrs (wks 10-12)	
<b>NON-NICOTINE MEDICATION</b>		
<b>BUPROPION HCL SR (prescription)</b>		
150 mg tablet	Initial: 150mg/day (days 1-3) 300 mg/day (day 4+) MAX 300 mg/day	Treatment Duration: 7-12 wks. Begin bupropion 1-2 wks before the quit date. Duration of therapy is 7-12 wks and may be extended up to 6 mos.
Please consult the Physicians' Desk Reference for complete product information and contraindications.		

Fig 1. Quick guide to pharmacotherapy.

of practitioners and parents, rates of the first 2 A's, asking and advising, are at or <50%, respectively.<sup>95,96</sup> Parents report even lower national rates of assistance with medication or arranging follow-up.<sup>97</sup> Parent-reported national rates of pediatrician and family practitioner screening and counseling for rules prohibiting smoking in the house and car are also low.<sup>96</sup> Even in patients presenting with asthma, pediatricians documented addressing tobacco exposure as a possible factor <5% of the time.<sup>95</sup> Physicians, moreover, tend to overestimate the rate at which they perform preventive counseling<sup>98</sup>; thus, the actual prevalence of screening and cessation counseling is likely even lower.

Individual statewide surveys demonstrate that child health care clinicians have particularly low rates of implementing effective interventions with

parents who smoke.<sup>86,87</sup> In a population-based survey of pediatricians practicing in urban areas in California, pediatricians reported low rates of the strategies shown to be most successful such as setting a quit date (18%), prescribing NRT (13%), providing nurse-mediated counseling (10%), and scheduling a follow-up visit or telephone call (5%).<sup>88</sup>

Beyond prevalence studies, there have been many studies examining the efficacy and feasibility of specific tobacco-control interventions with parents in child health care settings.<sup>66,71,81,99-111</sup> Studies in these settings have tried to improve parental smoking-cessation rates primarily through the use of counseling and provision of written materials, with varied results. Three such studies documented some success,<sup>81,99,111</sup> whereas others showed no effect<sup>100,103,110</sup> or were inconclusive because they used no control

group.<sup>112,113</sup> In reducing SHS exposure of children, recent studies using counseling and provision of written materials have proven successful.<sup>104,105,108,109</sup> In a recent randomized trial of 303 women seen at pediatric clinics, Curry et al<sup>111</sup> evaluated the effectiveness of a smoking-cessation intervention to help mothers quit smoking. The intervention consisted of brief cessation advice given by the pediatrician (usually lasting 1–5 minutes), a parent-tailored quit-smoking guide distributed by the pediatrician, a 10-minute intervention with a practice nurse or health educator directly after the child's visit, and up to 3 subsequent telephone calls from the practice nurse or health educator. At the 12-month follow-up, 13.5% of the intervention group abstained, compared with 6.9% of the control group, resulting in an adjusted odds ratio (OR) of 2.77 (confidence interval [CI]: 1.24–6.60), demonstrating that office-based and telephone counseling can be effective in increasing the quit rates of parents who smoke. Study participants noted that the discussions with the physicians were "somewhat or very encouraging of trying to quit."<sup>111(p299)</sup> Parents are receptive to cessation advice from their child's doctor and child health care clinicians. If given the tools, child health care clinicians are able to counsel parents. Another study has demonstrated the feasibility of addressing parental smoking in an outpatient pediatric clinic using the currently recommended strategy of proactive telephone counseling and NRT.<sup>66</sup> In this study, parental cessation outcomes were encouraging but difficult to interpret because the study lacked a control group. Current and planned future studies will address how to optimize implementation of the PHS tobacco treatment guideline within child health care settings.

#### SPECIAL CONSIDERATIONS FOR CHILD HEALTH CARE SETTINGS

Many child health care clinicians have difficulty with the idea of expanding their roles to include primary and secondary prevention of adult problems that directly impact the health of children, such as parental smoking. Given the depth and breadth required for high-quality pediatric primary care encounters, pediatric health care clinicians generally do not have time for more than brief counseling interventions for smokers. As such, it will be important to use ancillary staff in smoking-cessation efforts and adjuncts such as evidence-based telephone quitlines that can provide more extensive counseling. Higher rates of service delivery and better rates of documentation tracking will be possible with electronic medical record systems that contain prompts for tobacco-use assessment and intervention.<sup>114</sup>

Some child health care clinicians may be concerned about lawsuits from prescription of NRT to parents. However, NRT has been shown to be safe and effective even in patients with cardiovascular disease<sup>115,116</sup> and pulmonary disease,<sup>117</sup> the elderly,<sup>118</sup> and concurrent smokers.<sup>119,120</sup> Cigarettes themselves deliver higher levels of nicotine, cause severe disease and death when used as directed, and are available without a prescription. The World Health

Organization has based regulatory recommendations for NRT on the following premise:

Virtually all potential users of NRT are already consuming substantial quantities of the drug nicotine through its most addictive and toxic delivery system—tobacco smoke. Use of NRT by a smoker can improve the chance that they will quit smoking tobacco, but will not introduce new risks not already faced by smokers and will greatly reduce or eliminate many smoking related risks.<sup>121(p1)</sup>

Many insurance carriers, including 71% of Medicaid plans,<sup>122</sup> now cover NRT so that a prescription from a clinician will make this option available for free or for the price of a copayment. Half of parental smokers now say they would consider using a medication to help them quit, and 85% of those would accept that medication from their child's doctor.<sup>97</sup> Some child health care clinicians already prescribe for parents in cases of scabies, head lice, meningococcal disease, and pertussis.<sup>123</sup> Child health care providers who are unwilling to prescribe over-the-counter NRT to parents should at least recommend appropriate medication to double the chances of success in quitting.

Clinicians might consider recommending or prescribing nicotine gum during pregnancy as a harm-reduction strategy if nonpharmacologic methods have been unsuccessful at producing cessation.<sup>124–126</sup> NRT is not routinely recommended for pregnant smokers due to the harm that nicotine itself may cause the developing fetus.<sup>125,126</sup> However, when used as directed, nicotine gum always delivers less nicotine than smoking cigarettes.<sup>124</sup>

Although instituting a ban on smoking in the home, car, and other settings in which a child is exposed is not included in the PHS tobacco treatment guideline, such bans are important adjuncts to cessation treatment when addressing smoking with parents in child health care settings. Encouraging the institution of household and car smoking bans can help address the problem of parental smoking in at least 3 ways. First, bans have been recommended to reduce the exposure to children and spouses to SHS from a parent's smoking.<sup>127–132</sup> A strict household and car prohibition on smoking also reduces the amount of tobacco toxin exposure children receive from nonparent relatives and other visiting adults. Second, bans may reduce smoking rates and cigarette consumption among youth.<sup>46,128,133–136</sup> Finally, by making smoking more difficult, bans may also help the cessation process for the parent who smokes.<sup>46,137,138</sup>

#### DISCUSSION AND RECOMMENDATIONS

Parents who quit smoking will add an average of 7 years to their lives,<sup>139</sup> improve the health of their spouses, eliminate the majority of SHS exposure to their children, reduce tobacco-related poor pregnancy outcomes, eliminate the greatest cause of house-fire mortality, and improve the financial resources of their families. Earlier parental quitting will also likely decrease the uptake of teen smoking.<sup>47,49,50</sup> Child health care clinicians should ensure that their offices facilitate the delivery of evidence-based tobacco treatment for all parents who smoke.

Although most child health care clinicians will not have time to spend the majority of a clinical encounter on the parent's smoking, brief interventions are effective, and complementary strategies such as quit-lines will maximize the chances of parental smoking cessation. Adopting the 5 A's framework strategy gives each parent the maximum chance of quitting. These recommendations have been summarized in pocket-card format in Figs. 1 and 2.

1. **Ask:** Establish a system in the clinical setting to assess and document the smoking and SHS exposure status of all parents and children in the practice. Strategies might include chart stickers for the problem list that indicate current/former/never smoker for each parent or guardian. For smokers who have already quit, reinforce continued abstinence, especially for postpartum mothers who quit during pregnancy.
2. **Advise:** Advise all parents to quit smoking and establish a smoke-free policy in their home and

cars. Use language such as "I strongly advise that you establish a no-smoking policy in your home and car and that you quit smoking yourself. I can help you." Teachable moments that the children may provide should be used to tailor the messages whenever possible: "Because of your daughter's asthma, it is particularly important for you to stop smoking. I can help you."

3. **Assess:** Ask all parental smokers at every visit if they are willing to make a quit attempt.
4. **Assist:** There are 3 components to effective smoking-cessation assistance. The first is provision of brief counseling to increase a parent's motivation to quit. For parents ready to quit, provide brief counseling including help in developing a quit plan. Figure 2 provides guidance for the child health care clinician to provide other effective behavioral interventions. The second component is a medication prescription or an offer to contact the parent's doctor for provision of medication, per-

Fig 2. Quick guide to tobacco treatment.

<b>Quick Guide to Tobacco Treatment The 5A's for Child Healthcare Clinicians</b>	
<b>Ask about tobacco use at every visit</b>	
➤	Implement an office system that ensures that, for every patient at every visit, adolescent and parental tobacco use status and secondhand smoke exposure is documented
<b>Advise all tobacco users to quit</b>	
➤	I strongly advise that you establish a no-smoking policy in your home and car and that you quit smoking yourself. I can help you.
<b>Assess readiness to quit</b>	
➤	Ask every tobacco user if he/she is willing to make a quit attempt at this time
➤	If willing to quit, provide assistance
➤	If unwilling to quit, provide motivational intervention (5 R's: Relevance, Risks, Rewards, Roadblocks, Repetition)
<b>Assist tobacco users in quitting</b>	
➤	Provide brief counseling: <ul style="list-style-type: none"> <li>▪ Help with a quit plan: Help the smoker set a quit date, if ready. Ask smoker to inform family, friends and coworkers about the intention to quit. Anticipate challenges to quitting. Get rid of cigarettes/ smoking paraphernalia. In the days preceding the quit date, consider changing the pattern of smoking so that the smoker avoids smoking in places that usually trigger the desire for a cigarette</li> <li>▪ Reasons to quit; Clarify the goal of complete abstinence</li> <li>▪ Barriers to quitting</li> <li>▪ Lessons from past quit attempts</li> <li>▪ Identify triggers and difficult situations and consider coping strategies</li> <li>▪ Enlist social support: Suggest and help the smoker identify a family member or friend who will be available to support the quit attempt.</li> </ul>
➤	Prescribe/recommend pharmacotherapy (patch, gum, lozenge, nasal spray, inhaler, bupropion-SR) unless contraindicated
➤	Provide supplementary educational materials
<b>Arrange follow-up</b>	
➤	Enroll smoker in telephone counseling
➤	At subsequent visit, review progress. Congratulate any successes
➤	If tobacco use has occurred: <ul style="list-style-type: none"> <li>▪ Ask for recommitment to total abstinence</li> <li>▪ Review circumstances that caused lapse</li> <li>▪ Use lapse as a learning experience</li> <li>▪ Assess pharmacotherapy use and problems</li> </ul>
➤	Consider additional referrals: _____

haps with a simple form letter. The use of NRT has well-established benefit and remarkably low risk. The nicotine patch and nicotine gum are especially popular cessation therapies and should be provided to parents who would like to try to quit with smoking-cessation pharmacotherapy. The patch prescription may be written as: nicotine patch, 21-mg (>9 cigarettes per day) or 14-mg (<9 cigarettes per day) strength, 1 patch per day, and dispense a 2-month supply. The gum may be prescribed as: nicotine gum, 4-mg (>20 cigarettes per day) or 2-mg (<20 cigarettes per day) strength, 1 to 2 pieces per hour, and dispense a 2-month supply. Child health care providers who are unwilling to prescribe over-the-counter NRT to parents should at least recommend appropriate cessation medication. See Fig. 1 for additional pharmacotherapies and treatment recommendations. The third is to provide written materials on effective cessation strategies.

5. Arrange: Arrange to follow-up on the parent's progress at the next visit. In addition, proactively enroll the parent in a quitline or local program that can provide expert counseling.

A wide gap exists between the recommendations described in the PHS clinical practice guideline and what occurs in child health care settings with regard to tobacco treatment for parents. In addition, current child health care practice contradicts the expressed wishes and expectations of the majority of parents. The child health care provider has a responsibility to protect and improve child health, which includes reducing child exposure to SHS and the likelihood of child smoking initiation by encouraging smoking bans in the child's environment and helping parents to quit smoking. Routinely offering smoking cessation to parents within the child health care setting will confer profound benefits to children and families.

#### ACKNOWLEDGMENTS

Support for this work came from Flight Attendant's Medical Research Institute grant 024032 and National Institutes of Health-National Cancer Institute grant 1 K07 CA100213 A 01 (to Dr Winickoff).

We acknowledge Sophie J. Balk, MD, Michael Fiore, MD, Jack E. Henningfield, PhD, David Kessler, MD, and Julius Richmond, MD, for contribution of key ideas, feedback, and providing inspiration for this article.

Other consortium members include Jasit S. Ahluwalia, MD, MPH, MS, Dana Best, MD, MPH, Joseph DiFranza, MD, Jonathan D. Klein, MD, MPH, Robert McMillen, PhD, Robin Mermelstein, PhD, Eric T. Moolchan, MD, Deborah Ossip-Klein, PhD, John Pierce, PhD, Julius B. Richmond, MD, James Sargent, MD, and Richard Wasserman, MD.

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### MEDICINE—WHY I LEFT YOU

I left you because you left me first  
 I left you because I found you in bed with another  
 I left you because I could no longer find the good  
 People with whom I shared cadavers  
 I left you because you lied to me  
 You said you would never let business come in the way of  
 Our love  
 I left you because you made love to corporate America  
 I left you because you mistook ethics for the appearance of ethics  
 I left you because you lost control of yourself  
 Dining with CEOs and CFOs and market share. . . .

Rodriguez BM, *Ann Int Med.* 2003;138:850

Submitted by Student

**State-of-the-Art Interventions for Office-Based Parental Tobacco Control**  
Jonathan P. Winickoff, Anna B. Berkowitz, Katie Brooks, Susanne E. Tanski, Alan Geller, Carey Thomson, Harry A. Lando, Susan Curry, Myra Muramoto, Alexander V. Prokhorov, Dana Best, Michael Weitzman, Lori Pbert and for the Tobacco Consortium, Center for Child Health Research of the American Academy of Pediatrics

*Pediatrics* 2005;115:750-760  
DOI: 10.1542/peds.2004-1055

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