

BASIC SKILLS FOR TOBACCO CESSATION



Smoking cessation in special populations

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Objectives

At the end of the webinar, participants will be able to:

- 1-Discuss the tobacco treatment options in pregnant, breastfeeding women, and adolescents
- 2-Identify the risks and benefits of pharmacology options for pregnant and breastfeeding females
- 3-Describe the specific behavioral counseling techniques to be used in such population

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Smoking and Pregnancy

Cigarette smoking during pregnancy is the most important modifiable risk factor associated with adverse pregnancy outcomes

52% of the women who smoke daily continue to smoke daily during pregnancy

Smoking rates are higher in the first trimester than in the second or the third trimester

Of quitters, 40% relapse within 6 months after delivery

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Factors related to smoking during pregnancy

- Lower socioeconomic status and education level
- Heavy smoking (>10 cig/day)
- Having a partner who smokes
- Alcohol and drug use
- Multiparity
- Younger women
- Associated mental diseases (Depression, Anxiety, Bipolar,...)

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Smoking Cessation in Pregnancy

Pregnancy is an optimal time for smoking cessation interventions because pregnant women are often highly motivated to stop smoking and have frequent and regular contact with clinicians

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Smoking Cessation Approach in Pregnancy

Address the health consequences:

❖ Maternal:

- The usual smoking health effects
- vaginal bleeding
- premature delivery
- placenta abruption and placenta previa
- spontaneous abortion
- ectopic pregnancy
- pre-eclampsia
- deep vein thrombosis

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Smoking Cessation Approach in Pregnancy

❖ Fetal :

- 50 % increased risk of stillbirth
- 2-5 fold increased risk of preterm premature rupture of membranes
- 1.5-3.5 increased risk of low birth weight
- 3.5 times the risk of placental abruption
- Double the risk of preterm birth, particularly prior to 32 weeks of gestation
- Small increase in miscarriage risk and a possible increase in some congenital malformations (heart defects, musculoskeletal defects, and orofacial clefts)

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Smoking Cessation Approach in Pregnancy

❖ Neonates:

- Increased signs of stress, irritability, and hypertonicity compared with those of nonsmokers
- Double the risk of sudden unexpected infant death
- Decreased pulmonary function tests
- Decreased respiratory flows and respiratory compliance and altered tidal breathing patterns (can persist)
- Wheezing
- Hospitalization for respiratory infections

❖ Breastfeeding

- Decreased milk volume production
- Lower milk fat concentration
- Shorter duration of breastfeeding

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Co screening in pregnancy

Immediate, simple and valid method to assess smoking status

Useful way of raising the subject of smoking

Cut points of 6 ppm–10 ppm have been established

Pregnant: CO \geq **4ppm**: support is required

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Case-1

28 year old lady who smokes 6-8 cigarettes per day since 5 years. Newly found to be pregnant and expressed great interest in stopping. What do you do next?

- 1- Advise starting NRT
- 2- Advise Behavioral counseling alone
- 3- NRT Plus Behavioral counseling
- 4- Pharmacotherapy plus behavioral counseling

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Behavioral counseling therapy alone

First-line intervention for smoking cessation

For women who are not heavy smokers

Strongly express that they can stop on their own

Who desire medication-free cessation

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Short counseling session

CO is a poisonous gas contained in cigarette smoke

Harmful to your baby

Reduces the oxygen available to the baby

CO crosses the placenta and enters the bloodstream of the baby

Risk of miscarriage and slow growth and development

CO levels return to normal very quickly once someone stops smoking

Benefits of quitting

For the woman:

- HR and body temperature will return to normal
- Easier breathing, less cough and wheeze, and less shortness of breath
- Increased energy levels
- Sense of smell and taste will improve
- Chance of infections will be reduced
- Save money by not purchasing cigarettes
- Less likely to develop lung and other cancers, heart disease, stroke, respiratory
- More likely to live a longer life³⁵

For the baby:

- Will get more oxygen, lungs will work better and may be healthier
- More likely to have a normal birth weight
- More likely to be born at term
- May have less asthma and wheezing problems

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Case-2

32 year old women, previously healthy except that she smokes 1 pack daily since 10 years, presenting with viral URTI .She's 10-week pregnant. She tried stopping but couldn't stop.

What u'll do concerning her smoking?

1. Behavioral counseling therapy
2. Behavioral counseling therapy plus Nicotine Patch
3. Behavioral counseling therapy plus Nicotine gum
4. Behavioral counseling therapy plus Bupropion

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Pharmacotherapy

Benefits of quitting with pharmacotherapy outweigh the potential risks of pharmacotherapy and the risks of continued smoking

- Nicotine replacement therapy
- Bupropion
- Varenicline

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NRT and smoking cessation in pregnancy

No strong evidence that pregnant smokers who use NRT are at higher risk of adverse perinatal events

NRT are effective :

- Meta-analysis of RCTs
- In pregnant smokers: pharmacotherapy (patch or gum) increases smoking cessation compared with no pharmacotherapy (RR 1.48, 95% CI 1.04-2.09)
- Treatment for 6-12 weeks

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NRT risks in pregnancy

US preventive service task force: no enough data on safety/harms
of NRT in pregnancy

2 y F/U for children: good development

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NRT and congenital abnormalities

For most system-specific Major Congenital Abnormalities (MCA):
No statistically significant increased risks except for respiratory anomalies (3/1000)
Risks were similar between smokers women and NRT users

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NRT considerations

Discussion on the benefits/risks

It should be clear that patient should stop

Close supervision

NRT should be used in the lowest effective dose

Short acting medications such as gum and lozenges are preferred over patches

If the patch is used, it should be removed while sleeping

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NRT considerations

NRT seems to be a reasonable option:

- 1) NRT contains only nicotine and not the many other toxins found in tobacco
- 2) The fetus tends to be exposed to less nicotine with NRT than with cigarettes
- 3) Potential benefits outweigh the potential risks

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Bupropion in pregnancy

- Effective for smoking cessation during pregnancy
- First- or second-line drug for women with contraindications to NRT
- Some increased risk of spontaneous abortion
- No increased risk of teratogenesis
- Appropriate to treat both smoking and depression during pregnancy
- Benefits outweigh the risks
- Better to wait until second trimester because rare, inconsistent data on cardiac congenital malformations
- Potential risk: Insomnia, rhinitis

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Varenicline in pregnancy

No information on the safety

Teratogenic effects have not been observed in animal studies

Better to avoid (lack of studies)

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Pharmacotherapy guidelines in pregnancy

Agency of Health Care Policy and Research, and the American Psychiatric Association:
Offer pharmacotherapy:

- Unable to quit

- Heavy smokers (>10 cigarettes per day)

- Smoking later in pregnancy

- Have previously attempted to stop

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Pharmacotherapy rules

General principles:

- The lowest effective dose

- Delay therapy until the second trimester

Nicotine replacement therapy and bupropion are reasonable first-line drug options

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Case-2

Patient stopped smoking for 1 month but she relapsed now asking about other options if she doesn't want to stop

1. Recommend E-cigarettes
2. Recommend that she reduces the number of cigarettes
3. Recommend that she uses light cigarettes

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What about E-cigarettes

It contains Nicotine

It affects fetal brain development

The data on benefits and risks are insufficient to recommend using these devices in pregnant women

E-cigarettes are not regulated

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Light and mild cigarette

Offers a false sense of security

Smokers mistakenly believe that these cigarettes are healthier

Smokers inhale deeper and longer or cover the filter ventilation holes

More nicotine, more tar and other carcinogens

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Smoking reduction

Significantly reducing the number of cigarettes smoked lowers the risk of having a low birth weight baby

Reduction in the number of cigarettes smoked during pregnancy has not produced consistent improvement in perinatal outcomes

Reduction can:

- Decrease nicotine dependency

- Increase women's self-efficacy

- Provide a feasible option for women who feel that quitting is not a possibility

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I tried but I couldn't!

- Stop smoking for brief periods of time
- During critical points in the pregnancy such as leading up to delivery
- Eat healthy, exercise, don't use alcohol/drugs
- Reduce/eliminate exposure to secondhand smoke

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Case-2

She delivered. She's coming to ask if she can use NRT during breastfeeding

1. Yes, you can use them
2. No you cannot
3. No enough data to recommend
4. Better use Bupropion

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Smoking and Breastfeeding

Decrease in milk volume production

Lower milk fat concentration

Shorter duration of lactation

Breast-fed infants of smoking mothers:

- Sleep less

- Urinary nicotine 10-fold higher than bottle-fed infants of smoking mothers, and up to 50 times higher than infants of nonsmoking mothers

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Smoking cessation during breastfeeding

Discuss benefits and risks

NRT better than smoking

21 mg transdermal nicotine patch results in nicotine breast milk levels that are equivalent to smoking 17 cigarettes daily

Daily replacement should not exceed daily cigarettes consumption

Gum, lozenges immediately after feeds better than patches

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Smoking cessation during breastfeeding

Bupropion enters breastmilk but has no adverse effects in breastfeeding infants ; data are limited; discuss benefits and risks ; risk of smoking outweigh the risk of bupropion

Varenicline: limited data, no studies on humans in breastfeeding women

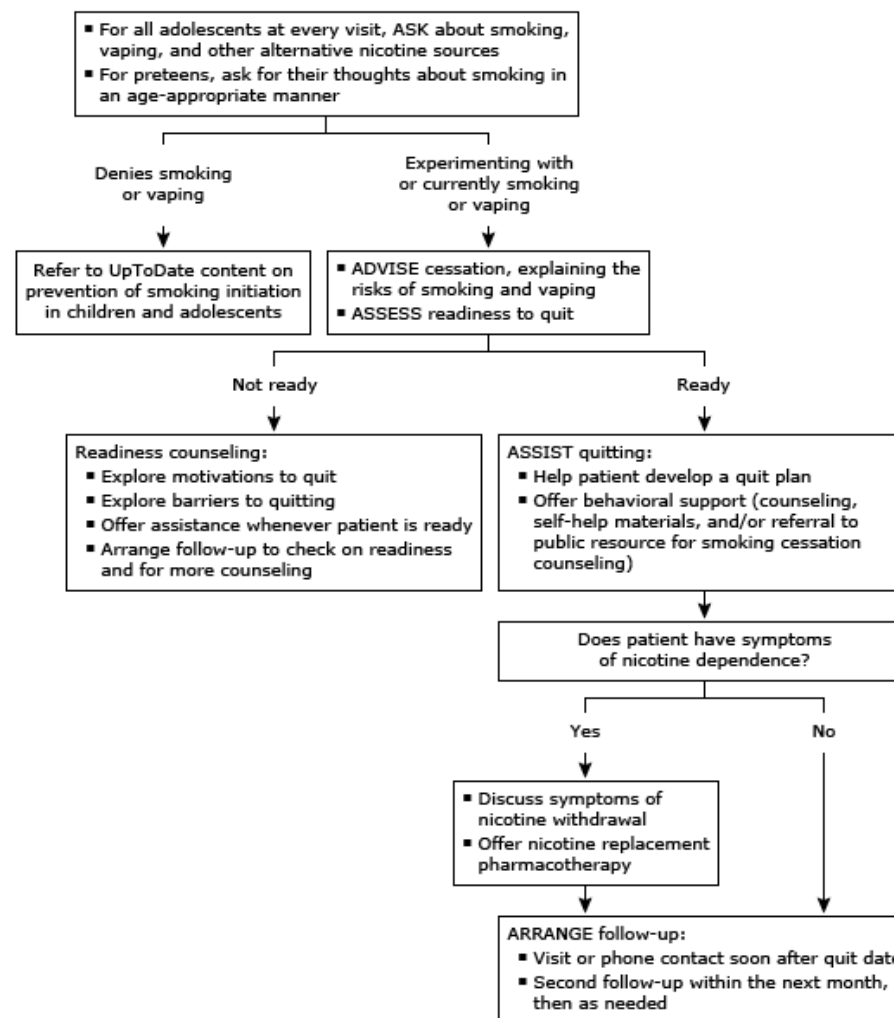
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Smoking cessation in adolescents

- Youth are particularly vulnerable to becoming dependent on nicotine, compared with adults
- Nicotine dependence can develop after as few as 100 cigarettes
- Use of e-cigarettes also promotes nicotine dependence and may lead to tobacco smoking
- A six-step approach called the six A's has been developed to guide clinician counseling about smoking cessation

Management of smoking and vaping cessation for adolescents



References:

1. Sims TH, the Committee on Substance Abuse. Tobacco as a Substance of Abuse. *Pediatrics* 2009; 124:e1045.
2. 2008 PHS Guideline Update Panel, Liaisons, and Staff. Treating Tobacco Use and Dependence: 2008 Update U.S. Public Health Service Clinical Practice Guideline Executive Summary. *Respir Care* 2008; 53:1217.

Six "A's" to prevent smoking initiation or support smoking cessation among adolescents

Intervention	Technique
Anticipate	Routinely ask parents about whether they smoke or vape and discuss the health effects of both. Discuss the possibility that preteen and adolescent children might start smoking or vaping, and emphasize the need for consistent messages from parents to prevent initiation.
Ask	For all adolescents at every visit, ask about tobacco and vaping use without the parents in the room. For preteen children, also inquire about tobacco and vaping use in an age-appropriate manner (eg, whether they have ever "tried" smoking or vaping or thought about trying). Also inquire about tobacco use among peers as this may predict smoking initiation.
Advise	Strongly urge all tobacco users to quit in a clear, strong, personalized manner. Advise all nonusers to remain tobacco-free. For patients who report vaping, advise regarding the potential health risks, including promoting nicotine addiction.
	Advice should be:
	Clear – "I think it is important for you to quit smoking now, and I can help you." "Cutting down is not enough." "If you wait until you feel bad effects of smoking, it will be too late."
	Strong – "As your doctor, I want you to know that quitting smoking is the most important thing you can do to protect your health now and in the future. I will help you quit."
Assess	Personalized – Tie tobacco use to current and future health and athletic performance, its social and economic costs, motivation level/readiness to quit, and the impact of tobacco use on siblings and others in the household. Remind parents of their responsibility as role models.
	Determine the patient's willingness to quit smoking or vaping within the next 30 days:
	If the patient is willing to make a quit attempt at this time, provide assistance.
	If the patient will participate in an intensive treatment, deliver such a treatment or refer to an intensive intervention.
Assist	If the patient clearly states he or she is unwilling to make a quit attempt at this time, provide a motivational intervention.
	If the patient is a member of a special population (eg, pregnant smoker, racial or ethnic minority), consider providing additional information relevant to this population.
	Provide aid for the patient to quit (eg, set a quit date, provide counseling and self-help materials, refer to a quit line). Consider nicotine replacement or other cessation pharmacotherapy if the patient seems likely to have nicotine withdrawal symptoms.
Arrange	Schedule follow-up contact, either in person or by telephone. Follow-up contact should occur soon after the quit date, preferably during the first week. A second follow-up contact is recommended within the first month. Schedule further follow-up contacts as indicated.
	Congratulate success during each follow-up. If the patient has used tobacco or vaping, review the circumstances and elicit recommitment to total abstinence. Remind the patient that a lapse can be used as a learning experience. Identify problems already encountered and anticipate challenges in the immediate future. Assess pharmacotherapy use and problems. Consider use or referral to more intensive treatment.

Adapted from: Sims TH, the Committee on Substance Abuse. Tobacco as a Substance of Abuse. *Pediatrics* 2009; 124:e1045.

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Vaping Cessation in adolescents

- For vaping cessation, it is reasonable to use methods similar to those used for smoking cessation
- Adolescents who are not interested in quitting should be given serial brief interventions with messages to increase ambivalence about smoking and motivate them to consider quitting by shifting the pro/con balance
- Advise regarding the potential health risks

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Smoking Cessation in adolescent

- Behavioral support for smoking cessation for all adolescents who smoke (**Grade 1B**).
- For vaping cessation, it is reasonable to use methods similar to those used for smoking cessation, although methods have not been studied directly
- For adolescents with symptoms of nicotine dependence, nicotine replacement therapy in conjunction with a counseling intervention
- Evidence is against the use of E-cigarettes as smoking cessation tool

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Conclusion

- Smoking has been associated with numerous adverse pregnancy outcome
- Ask, Assess, Advise, Assist, and arrange for pregnant women and adolescents to stop smoking
- Behavioral interventions should be attempted before NRT
- If women are unable to quit on their own or with counseling recommend NRT under close observation
- Pharmacotherapy should be considered an adjunct to, rather than a substitute for, behavioral intervention



THANK YOU



QUESTIONS