



Smoking and Diabetes: A Dangerous Liaison?

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Objectives

- List four complications of diabetes adversely impacted by smoking
- Describe impact of smoking on pregnancy outcomes
- State two drugs that may interact with tobacco in persons with diabetes
- Encourage diabetes educators to help patient stop smoking

Association of Smoking with DM: Plausible Causes

~27% of persons with diabetes are smokers

- Smoking leads to insulin resistance or inadequate insulin secretion
- ↓ insulin sensitivity may be secondary to:
 - Direct effects of nicotine, CO, or other chemicals
 - Changes in insulin signal transduction
 - Changes in glucose transport
- Other effects of nicotine:
 - Smoking may affect secretion of hormones that counteract insulin action
 - GH, cortisol, vasopressin

Association of Smoking with DM: New Information

- April 2011 – presentation at American Chemical Society
- In vitro experiment
 - Added equal amounts of glucose to human RBCs and varying amounts of nicotine for 1-2 days
 - Then checked glucose
- Results
 - Highest level of nicotine ↑ blood glucose 34.5%
- Implications
 - Association between nicotine and elevated blood glucose

Association of Smoking with DM: Plausible Causes

- Smoking: associated with unhealthy behaviors that favor weight gain and/or DM
- Comparing DM patients that smoke vs those that don't smoke:¹
 - ↓ Physical activity compared to non-smokers
 - More depression compared to non-smokers
 - Lower rates of checking glucose compared to non-smokers
 - Fewer DM care visits
 - Fewer A1C tests, foot exams, eye exams
 - Fewer dental checkups
 - Report receiving and *desiring* less family/friend support for DM self-care activities
- Dietary factors

Smoking and DM

- Smoking precedes DM in a dose-response relationship¹
 - Heavy smokers – HR 1.61 (95% CI 1.43-1.80)
 - Light smokers – HR 1.29 (95% CI 1.13-1.48)
 - Former smokers – HR 1.23 (95% CI 1.14-1.33)
- Smoking predicts Type 2 DM but cessation leads to a higher short term risk²
 - HR (highest tertile of pack years) – 1.42 (95% CI 1.20-1.67)
 - HR (continuing smokers) – 1.31 (95% CI 1.04-1.65)
 - HR (former smokers) – 1.22 (95% CI 0.99-1.50)
 - HR (new quitters) – 1.73 (95% CI 1.19-1.53)

1 JAMA 2007;298:2554-64

2 Ann Intern Med 2010;152:10-17



Issues With Smoking and DM

- DM patients at high risk for cardiovascular disease¹
 - HTN
 - Stroke
 - Myocardial infarction
 - Heart failure
 - Peripheral vascular disease
- What about DM patients that smoke?²
 - UKPDS Hazard Ratio for CAD in smokers:
 - 1.41 (95% CI 1.06-1.88)

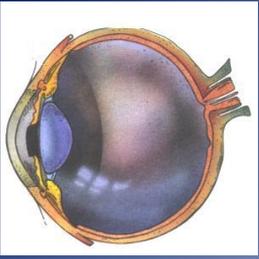
1 Diabetes Care 2011;34(Suppl 1):S11-61)

2 BMJ 1998;316:823-828



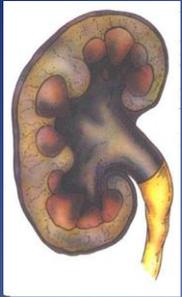
Issues With Smoking and DM

- DM patients are at high risk for retinopathy
 - HTN may adversely affect ophthalmic vessels
 - Elevated lipids may adversely affect ophthalmic vessels
 - Can smoking adversely affect ophthalmic vessels?
- DM patients that smoke are at great risk for retinopathy
 - True especially for T1DM
 - Conflicting results in T2DM



Issues With Smoking and DM

- Smokers have increased risk of developing cataracts
- Possible mechanisms:
 - Oxidation and precipitation of lens proteins
 - Tobacco smoke may alter plasma concentrations of nutrients essential for lens transparency
- DM patients that smoke are at risk for cataracts and other ocular complications



Issues With Smoking and DM

- DM patients are at high risk for nephropathy
 - HTN may adversely affect renal vasculature
 - Elevated lipids may adversely affect renal vasculature
 - Can smoking adversely affect renal vasculature?
- DM patients that smoke: risk for nephropathy
- Mechanism?
 - Mesangial cell proliferation, fibronectin production
 - Environmental tobacco: ↑ expression of profibrotic cytokines (TGF- β) and extracellular matrix proteins (fibronectin, collagen IV)

Am J Med Sci 2011;341:126-130

Am J Physiol Heart Circ Physiol 2007;292:76-82

Issues With Smoking and DM

- Swedish National Diabetes Register (5 yr F/U)¹
 - 3667 persons with no renal dysfunction at T2DM diagnosis
 - 20% developed albuminuria
 - 11% developed renal impairment
 - Positive association of smoking with albuminuria ($p < 0.001$)²
- Prospective smoking cessation study in persons with newly-diagnosed T2DM²
 - Improvement of microalbuminuria
 - ↓ BG, BP, IR, dyslipidemia, PVD, neuropathy

1 Nephrol Dial Transplant 2011;26:1236-1243

2 Metabolism (2011), doi:10.1016/j.metabol.2011.02.014

Issues With Smoking and DM

- Smoking is also associated with neuropathy¹
 - 2.2 times greater in smokers versus non-smokers
- A type of neuropathy is erectile dysfunction (ED)
- 23% of cases of ED are due to smoking
- DM patients are at high risk for erectile dysfunction
 - HTN and/or HTN treatment may result in ED
- DM patients that smoke: at risk for ED



Smoking and Pregnancy?

- Up to 20% of all pregnant women smoke
- Per epidemiologic data, nicotine in pregnancy is associated with long-term effects in offspring^{1,2}
 - Obesity, HTN, T2DM
- Mechanism?²
 - Decreased beta cell mass (apoptosis)
 - Problems with beta cell proliferation

1 BMJ 2002;324:26-27

2 Toxicol Sci 2010;116:364-374

Smoking and Pregnancy?

- Previous information on smoking during pregnancy
 - 20-30% of babies have low birth weight
 - Up to 14% are pre-term
 - ↓ lung function in full term babies
- New information on smoking during pregnancy!!
 - Significant association with several birth defects (cardiac, eye, club feet, missing/extra digits, GI, musculoskeletal, facial, hernias, other)



DRUG INTERACTIONS
With SMOKING
Relevant to Diabetes

PHARMACOKINETIC DRUG INTERACTIONS with SMOKING

- Drugs that may have a *decreased effect* due to induction of CYP1A2:
 - Caffeine
 - Fluvoxamine
 - Olanzapine, Clozapine, Haloperidol
 - Irinotecan
 - Theophylline
- Increased effect?
 - Clopidogrel

PHARMACOKINETIC DRUG INTERACTIONS with SMOKING

- What about injected insulin?
 - Insulin absorption may be decreased secondary to peripheral vasoconstriction
 - Smoking may cause release of endogenous substances that antagonize the effects of insulin
 - Smokers may require higher doses of injected insulin

PHARMACOKINETIC DRUG INTERACTIONS with SMOKING

- Beta blockers
 - Pharmacodynamic interaction: Lower antihypertensive and heart rate control effects
 - May be caused by nicotine-mediated sympathetic activation
 - Additive peripheral vasoconstriction?
 - When beta receptors are blocked, alpha receptors are left unopposed

PHARMACODYNAMIC DRUG INTERACTIONS with SMOKING

- Opioids
 - Decreased analgesic effect
 - Higher doses necessary
 - Mechanism not known
- Bottom line – smokers may need higher doses of pain meds to relieve pain

PHARMACODYNAMIC DRUG INTERACTIONS with SMOKING

Smokers who use combined hormonal contraceptives have an increased risk of serious cardiovascular adverse effects:

- Stroke
- Myocardial infarction
- Thromboembolism



Women who are 35 years of age or older AND smoke at least 15 cigarettes per day are at significantly elevated risk.

DRUG INTERACTIONS with SMOKING: SUMMARY

Clinicians should be aware of their patients' smoking status:

- Interactions may result from the combustion products of tobacco smoke (not necessarily the nicotine)
- These tobacco smoke constituents (e.g., polycyclic aromatic hydrocarbons; PAHs) may enhance the metabolism of other drugs, resulting in a reduced pharmacologic response.
- Smoking might adversely affect the clinical response to the treatment of a wide variety of conditions.

Smoking Cessation Pharmacotherapy

Three Main Types:

- Nicotine replacement therapy
- Bupropion
- Partial nicotinic receptor agonist
 - Varenicline

DM patients are often unaware of:

- Association between smoking and *microvascular* complications
- Pharmacotherapies that exist for smoking cessation

NRT: PRODUCTS

Polacrilex gum

- Nicorette (OTC)
- Generic nicotine gum (OTC)

Lozenge

- Commit (OTC)
- Generic nicotine lozenge (OTC)

Transdermal patch

- Nicoderm CQ (OTC)
- Generic nicotine patches (OTC, Rx)

Nasal spray

- Nicotrol NS (Rx)

Inhaler

- Nicotrol (Rx)

NRT decreases physical withdrawal
Caution in persons with CV disease





NICOTINE GUM

ADVANTAGES

- Gum use may satisfy oral cravings.
- Gum use may delay weight gain (4 mg).
- Patients can titrate therapy to manage withdrawal.
- Variety of flavors.

DISADVANTAGES

- Frequent dosing may compromise compliance
- Problematic for pts with dental work (dentures)
- Patients must use proper chewing technique to minimize adverse effects.
- Socially acceptable?

NICOTINE LOZENGE



ADVANTAGES

- May satisfy oral cravings.
- May delay weight gain (4 mg)
- Easy to use/conceal.
- Can titrate to manage withdrawal.
- Several flavors

DISADVANTAGES

- Frequent dosing may compromise compliance
- Gastrointestinal side effects (nausea, hiccups, and heartburn) may be bothersome.

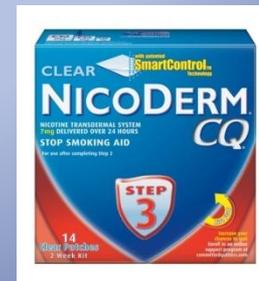
TRANSDERMAL NICOTINE PATCH

ADVANTAGES

- The patch provides consistent nicotine levels.
- Easy to use/conceal.
- Fewer compliance issues are associated with patch use.

DISADVANTAGES

- Patients can't titrate to acutely manage withdrawal.
- Allergic reactions to the adhesive may occur; dermatitis patients shouldn't use.
- Vivid dreams, HA
- Less effective second time around?



NICOTINE NASAL SPRAY

ADVANTAGES

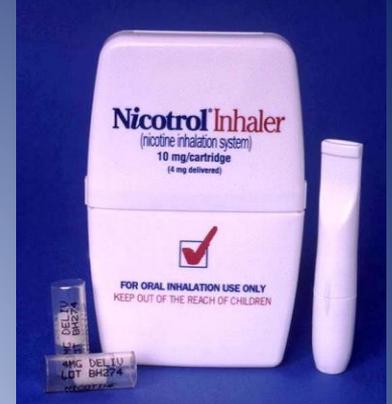
- Can easily titrate to rapidly manage withdrawal symptoms.



DISADVANTAGES

- Nasal/throat irritation may be bothersome (peppery) for first week.
- Higher dependence potential.
- If chronic nasal disorders or severe reactive airway disease, shouldn't use.

NICOTINE INHALER



ADVANTAGES

- Patients can easily titrate therapy to manage withdrawal symptoms.
- Delivers nicotine vapor
- Mimics the hand-to-mouth ritual of smoking.

DISADVANTAGES

- The initial throat or mouth irritation can be bothersome.
- Cartridges should not be stored in very warm conditions or used in very cold conditions.
- Patients with underlying bronchospastic disease must use the inhaler with caution.

Nicotine Replacement Therapy in Diabetes

- NRT increases catecholamine levels
- May affect carbohydrate metabolism
- Blood glucose may increase
- Bottom line.....Monitor blood glucose and adjust diabetes meds as needed

BUPROPION: MECHANISM of ACTION

- Atypical antidepressant thought to affect levels of various brain neurotransmitters
 - Dopamine
 - Norepinephrine
- Clinical effects
 - ↓ craving for cigarettes
 - ↓ symptoms of nicotine withdrawal



BUPROPION SR

ADVANTAGES

- Oral formulation with twice-a-day dosing.
- Bupropion might be beneficial for patients with depression.
 - Has been used for depression in DM
- No weight gain.

DISADVANTAGES

- The seizure risk is increased.
- Consider persons at risk for *hypoglycemic* seizures
- Several contraindications and precautions preclude use (eating disorders).



VARENICLINE: MECHANISM of ACTION



- Binds with high affinity and selectivity at $\alpha_4\beta_2$ neuronal nicotinic acetylcholine receptors
 - Stimulates low-level agonist activity
 - Competitively inhibits binding of nicotine
- Clinical effects
 - ↓ symptoms of nicotine withdrawal
 - Blocks dopaminergic stimulation responsible for reinforcement & reward associated with smoking



VARENICLINE

ADVANTAGES

- Varenicline is an oral formulation with twice-a-day dosing.
- Offers mechanism of action for persons who previously failed using other medications.
- New information: Quit date between day 8 and 35 of treatment.

DISADVANTAGES

- May induce nausea in up to one third of patients.
- Newer information on possibility of psychiatric reactions and cardiovascular risk (although very small).
 - Monitor for shortness of breath, chest pain, pain in legs when walking.

What About Combinations?

- **Combination NRT**

Long-acting formulation (patch)

- Produces relatively constant levels of nicotine

PLUS

Short-acting formulation (gum, lozenge, inhaler, nasal spray)

- Allows for acute dose titration as needed for withdrawal symptoms

- **Bupropion SR + NRT**

- **The safety and efficacy of combination of varenicline with NRT or bupropion has not been established.**

COMBINATION PHARMACOTHERAPY

Regimens with enough evidence to be “recommended” first-line

- **Combination NRT**

- Long-acting formulation (patch)

- Produces relatively constant levels of nicotine

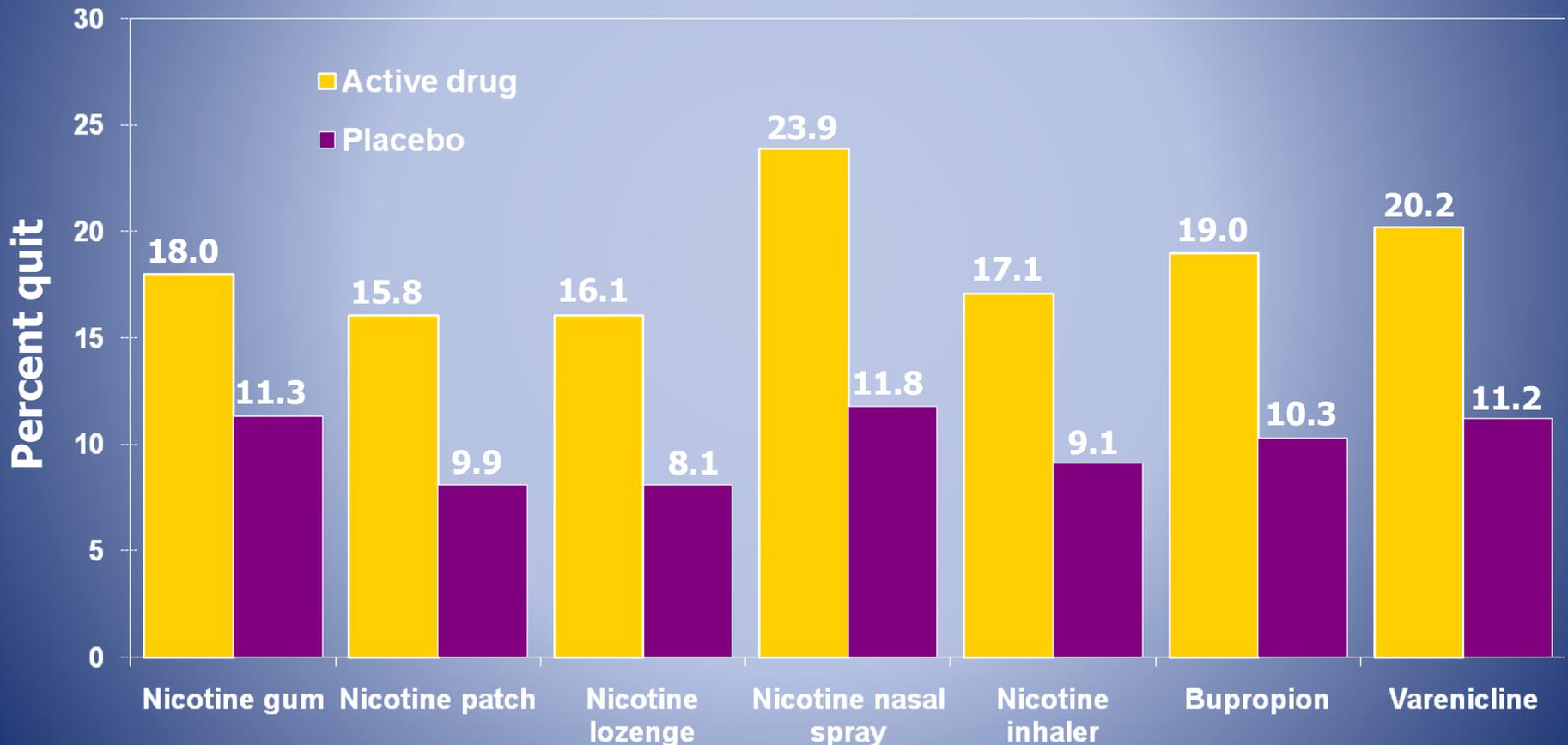
PLUS

- Short-acting formulation (gum, inhaler, nasal spray)

- Allows for acute dose titration as needed for nicotine withdrawal symptoms

- **Bupropion SR + Nicotine Patch**

LONG-TERM (≥ 6 month) QUIT RATES for AVAILABLE CESSATION MEDICATIONS



Data adapted from Cahill et al. (2008). *Cochrane Database Syst Rev*; Stead et al. (2008). *Cochrane Database Syst Rev*; Hughes et al. (2007). *Cochrane Database Syst Rev*

For All Treatments: COMPLIANCE IS KEY to QUITTING

- Promote compliance with prescribed regimens.
- Use according to dosing schedule, NOT as needed.
- Consider telling the patient:
 - “When you use a cessation product it is important to read all the directions thoroughly before using the product. The products work best in alleviating withdrawal symptoms when used correctly, and according to the recommended dosing schedule.”

Considerations When Working With A DM Patient Who Smokes

“The cardiovascular burden of diabetes, especially in combination with smoking, has not been effectively communicated to people with diabetes or to health care providers, and there is little evidence that this risk factor is being addressed as consistently and comprehensively as its importance requires.”

ADA: Position Statement: Smoking and Diabetes. Diabetes Care 2004;27(Suppl 1): S74-75

Considerations When Working With A DM Patient Who Smokes

- Every smoker should be asked if they are willing to quit at this time
 - If no, initiate brief motivational discussions regarding the need to stop
 - If yes, assess preference for and initiate brief or intensive cessation counseling strategies
 - Initiate appropriate pharmacological treatment
- Train all HCPs in the Public Health Service guidelines
- Follow up!!!

Smoking Cessation is Possible!!



Tobacco Cessation Interventions

Anna Guymon, B.S., CHES

Tobacco Prevention and Control Program

Weber-Morgan Health Department

aguymon@co.weber.ut.us

<http://www.tobaccofreeutah.org/healthcare.html>

(801) 399-7182

Tobacco Use in the U.S.: The Problem

- 46.6 million adults in the U.S. use tobacco
- Tobacco use is responsible for about one in five deaths annually
 - Approximately 443,000 deaths per year
- Approximately 70% of smokers want to quit completely

Source: Centers for Disease Control and Prevention. [Cigarette Smoking Among Adults and Trends in Smoking Cessation-United States. 2008](#)

Tobacco Use in Utah: The Problem

- More than 200,000 Utahns use tobacco
- More than 1,330 die annually from their smoking
- Nearly 17,150 children exposed to secondhand smoke in their homes
- \$663 million each year in smoking-attributable medical and lost productivity costs

Source: Tobacco Prevention and Control in Utah Tenth Annual Report - August 2010

WHY SHOULD CLINICIANS ADDRESS TOBACCO?

- Tobacco users expect to be encouraged to quit by health professionals.
 - 72% of Utahns saw a healthcare provider in the last year
- Screening for tobacco use and providing tobacco cessation counseling are positively associated with patient satisfaction (Barzilai et al., 2001).
- Advice from a healthcare provider can double the chances of successful quitting.

Helping Patients Quit is a Clinician's Responsibility

**TOBACCO USERS DON'T PLAN TO FAIL.
MOST FAIL TO PLAN.**

Clinicians have a professional obligation to address tobacco use and can have an important role in helping patients plan for their quit attempts.

**THE DECISION TO QUIT LIES
IN THE HANDS OF EACH PATIENT.**

Tobacco Dependence: a 2-Part Problem

Tobacco Dependence

Physiological

The addiction to nicotine



Treatment

Medications for cessation



Behavioral

The habit of using tobacco



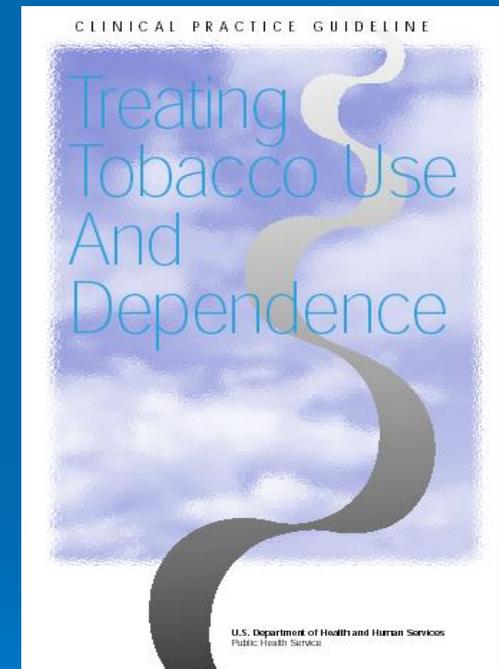
Treatment

Behavior change program

Treatment should address the physiological **and** the behavioral aspects of dependence.

Clinical Practice Guideline for Treating Tobacco Use and Dependence

- Update released May 2008
- Sponsored by the Agency for Healthcare Research and Quality of the U.S. Public Health Service with
 - Centers for Disease Control and Prevention
 - National Cancer Institute
 - National Institute for Drug Addiction
 - National Heart, Lung, & Blood Institute
 - Robert Wood Johnson Foundation

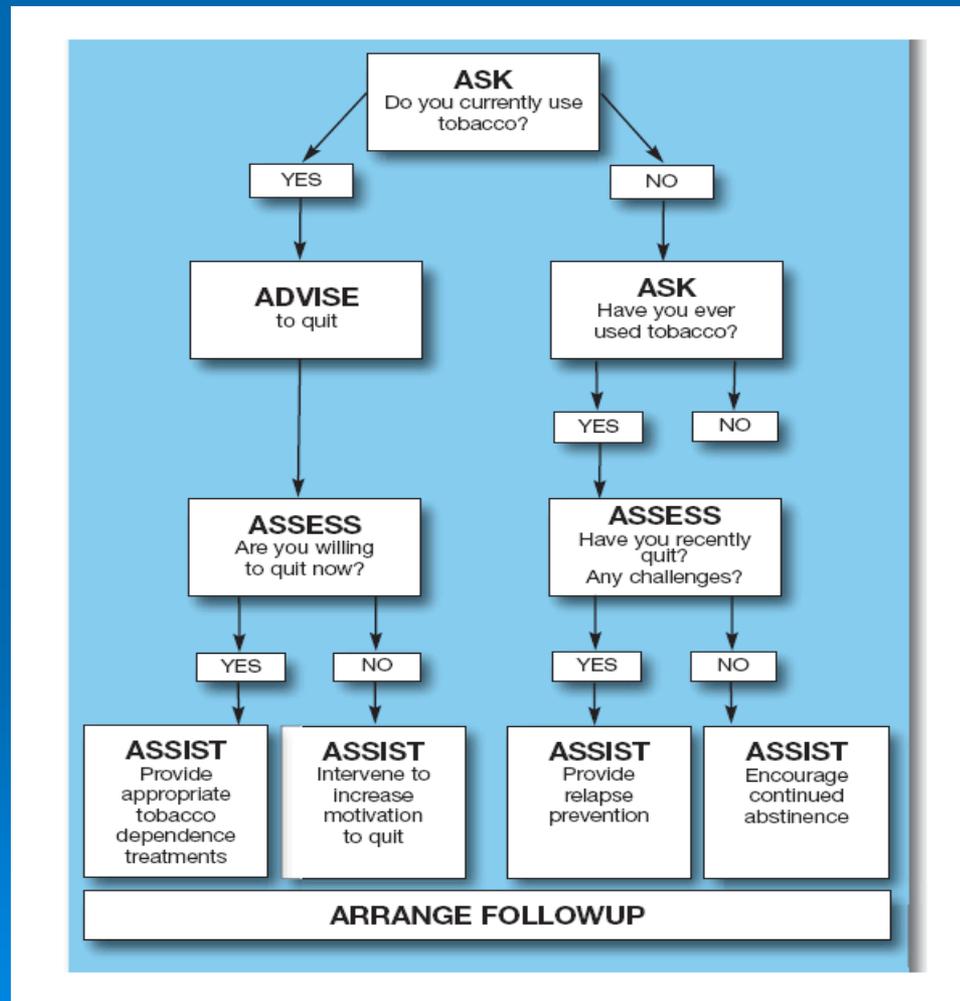


Helping Tobacco Users Quit



- **ASK** the patient if he or she uses tobacco
- **ADVISE** him or her to quit
- **ASSESS** willingness to make a quit attempt
- **ASSIST** him or her in making a quit attempt
- **ARRANGE** for follow-up contacts to prevent relapse

The “5A’s” Model for Treating Tobacco Use and Dependence



#1. ASK

Ask EVERY patient about tobacco use status.

- **Current**
- **Former**
- **Never**

This occurs most consistently when there are systems in place, such as question on intake form, chart stickers, or electronic prompts on electronic medical records. Chart stickers are available online.

#2. ADVISE

Health care providers should urge all tobacco users to quit.

Even brief advice to quit by a clinician results in greater quit rates. Smokers cite a clinician's advice to quit as an important motivator for attempting to stop smoking.

Advice should be:

- **Clear**
- **Strong**
- **Personalized**

Specific to the individual's own situation
(e.g. medical condition, family status, costs of tobacco).

#3: ASSESS

"Are you willing to try to quit at this time?"



What if they are not willing?

People may not desire to quit because of:

- fear they will be unable to quit
- dread of withdrawal symptoms
- pleasure of smoking or chewing



Offer a motivational intervention, the “5 R's”

Relevance

Risks

Rewards

Roadblocks

Repetition

The “5 R’s”

Relevance: Why is quitting important to their own personal situation?

Risks: Outline the risks of continued tobacco use.

Rewards: Outline the benefits of quitting.

Roadblocks: What are the barriers preventing this person from quitting? What are some solutions to these barriers?

Repetition: Repeat this discussion frequently, until the person is ready to quit.

#4. Assist

- **Set a quit date.** Within 2 weeks is best.
- **Tell family and friends.** Social support helps!
- **Review past quit attempt experiences.** What worked? What didn't?
- **Anticipate challenges.** Symptoms such as irritability, cravings, insomnia & coughing may occur for 2-3 weeks after quitting.
- **Remove tobacco products.** In addition, ask family members not to smoke around you or leave tobacco products where you can get them.
- **Avoid alcohol.** About half of smokers who try to quit and relapse do so when drinking.

#5. ARRANGE

Follow-up with the Utah Tobacco Quit Line Fax Referral System

“Would you like the Utah Tobacco Quit Line to help you quit?”



ARRANGE Follow-up continued:

If the answer is “NO”:

Offer a Utah Tobacco Quit Line card so that the client can contact the Quit Line or QuitNet when ready.

ARRANGE Follow-up continued:

If the answer is “YES”:

Schedule follow-up using Utah Tobacco Quit
Line Proactive Fax Referral System.

(3 Simple Steps)



PATIENT INFORMATION (PRINT CLEARLY)	
Patient name (Last) _____, (First) _____	Date of birth _____ Gender <input type="checkbox"/> M <input type="checkbox"/> F
Address _____ City _____, State UT Zip code _____	
Phone #1 (____) _____ - _____ #2 (____) _____ - _____	E-mail _____
Cell Phone # (____) _____ - _____	Text Message: <input type="checkbox"/> Yes <input type="checkbox"/> No
Best times to call <input type="checkbox"/> morning <input type="checkbox"/> afternoon <input type="checkbox"/> evening Weekend: <input type="checkbox"/> Yes <input type="checkbox"/> No	
May we leave a message? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Language <input type="checkbox"/> English <input type="checkbox"/> Spanish; Other _____ Are you hearing impaired and need assistance? <input type="checkbox"/> Yes <input type="checkbox"/> No	
_____ I am ready to quit tobacco and request that the Utah Tobacco Quit Line contact me to help with my quit <i>Initial</i> plans.	
I understand that the Utah Tobacco Quit Line will inform my provider about my participation and quitting results.	
Patient signature _____	Date _____
<i>This release shall be valid for one year after the above date.</i>	

PROVIDER INFORMATION (PRINT CLEARLY)	
Provider name _____	Contact name _____
Clinic/Hosp/Dept _____	E-mail _____
Address _____	Phone (____) _____ - _____
City/State/Zip _____	Fax (____) _____ - _____

PLEASE COMPLETE FORM AND FAX OR MAIL TO:

FAX 1-800-483-3076
Utah Tobacco Quit Line
National Jewish Health™
1400 Jackson St., M302
Denver, CO 80206

Confidentiality Notice: This facsimile contains confidential information. If you have received this in error, please notify the sender immediately by telephone and confidentially dispose of the material. Do not review, disclose, copy or distribute.

3 Simple Steps

1. Personalize your forms online at:
www.tobaccofreeutah.org/utqlprofax.html
 2. 5A's with client. For those ready to quit give them the form to fill out. Verify signature!
 3. Fax form in to the Utah Tobacco Quit Line:
1-800-483-3076
- *The Quit Line will fax you to inform you of services your patient received.

ARRANGE Follow-up continued:

The Utah Tobacco Quit Line Faxes You to inform you of services your patient received.

Add the fax to the patient's health record. The next time you see the patient, ask them about how their quit attempt went.



Combining Counseling & Medication

- The combination of both counseling and medication is more effective for cessation than either medication or counseling alone.

Treatment	Number of arms	Estimated odds ratio (95% C.I.)	Estimated abstinence rate (95% C.I.)
0-1 Session plus medication	13	1.0	21.8
2-3 Sessions plus medication	6	1.4 (1.1, 1.8)	28.0 (23.0, 33.6)
4-8 Sessions plus medication	19	1.3 (1.1, 1.5)	26.9 (24.3, 29.7)
More than 8 Sessions plus medication	9	1.7 (1.3, 2.2)	32.5 (27.3, 38.3)

Quitline Counseling

Meta-analysis (2008): Effectiveness of and estimated abstinence rates for quitline counseling and medication compared to medication alone (n = 6 studies)

Intervention	Number of arms	Estimated odds ratio (95% C.I.)	Estimated abstinence rate (95% C.I.)
Medication alone	6	1.0	23.2
Medication and quitline counseling	6	1.3 (1.1, 1.6)	28.1 (24.5, 32.0)

National Resources for Clinicians

➤ Clinical Practice Guidelines for Treating Tobacco Dependence

- <http://www.ahrq.gov/clinic/tobacco/order.htm>
 - Pocket guide for clinicians
 - Tear sheets

➤ National QuitLine

- 1-800-QUIT-NOW
- <http://www.smokefree.gov/>

National Resources for Clinicians

- Alliance for the Prevention and Treatment of Nicotine Addiction (APTNA)
 - Resources, training and links for healthcare providers
 - <http://www.aptna.org/index.html>

- National Tobacco Cessation Collaborative
 - Clinician's Guide to implementing the 5A's
 - <http://www.tobacco-cessation.org/resources/tools.html>

Resources for Utah Clinicians

- Utah Tobacco Quit Line
- Utah Quit Net
- TEXT to Quit
- Utah Tobacco Free Resource Line



About the Utah Tobacco Quit Line

- Telephone quit line counseling is effective with diverse populations and has broad reach
 - Services available in English, Spanish and translation in 140 other languages
 - For adults and youth

- **FREE** service
 - Toll free: 1.800.QUIT.NOW
 - Monday-Sunday, 6:00 am to 10:00 pm

How the Utah Tobacco Quit Line Works

- Professional counseling sessions by telephone – up to five 40-minute sessions
- Individualized Quit Plan
- **NRT** upon qualification
- Quit Kits & Information
- Tailored resources for Utah residents



- Quitting guide
- Medication guide
- Expert counseling
- Personalized quit plan
- 24 hour community support
- Online NRT purchase

Lifetime membership!

The TRUTH™

TEXT TO QUIT

To get daily quit tips, text "**READY**" to 53535.
For more advice on quitting smoking, visit UtahQuitNet.com

- Text messaging service that offers Utahns daily quit tips to help them get through the quitting process
 - Users text READY to 53535 to receive two quit tips per day via cell phone for 21 days.
 - Users will be asked to answer simple questions regarding age, gender and zip code.
- New research suggests that motivational text messages more than double the odds that smokers will be able to kick the habit.

Utah Tobacco Free Resource Line

Tobacco Free Resource Line

1-877-220-3466

TheTRUTH@utah.gov

<http://www.tobaccofreeutah.org/healthcare1.html>

- **Brochures and Self-Help Manuals** targeted to many specific populations.
- **Health Care Provider materials** such as the laminated 5 A's reminder cards and tear pads.
- **Referral Materials** such as Quit Line cards and fax referral forms.

What About A Relapse?

- Viewed as a **learning experience**
- Not a sign of personal or clinician failure
- Continue to provide encouragement

It takes an average of 4 to 7 quit attempts to successfully quit using tobacco!

Questions?

