

Developing a Smoking Cessation Program in the Acute Care Setting

Understanding Tobacco Dependence

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Understanding Tobacco Dependence

NICOTINE



**Nicotine:
Wonder
Drug**

- Increases alertness/attention
- Improves task performance
- Acts as stimulant & sedative
- Acts as antidepressant and/or anti-anxiety agent
- Causes adrenaline rush and release of glucose, suppresses insulin output
- Increases heart rate, respiration & BP

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NICOTINE



- Decreases appetite, interferes with absorption of nutrients
- Vasoconstrictor: decreases circulation in extremities
- 90% of nicotine in cigarette smoke is absorbed in the lungs
- Takes about 10 seconds to reach brain (and to feel the effects)

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NICOTINE

- “Dose” easy to modify by how cigarette is smoked (1-2 mg extracted/cigarette on average)
- Each cigarette: 10 puffs taken over 5 minutes (200 Ahits@ per pack)
- Short half-life results in withdrawal symptoms soon after last dose
- Toxic in high doses
- Cigarettes/tobacco: cheap, easy to get, portable



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NICOTINE ADDICTION



The Health Consequences of Smoking

NICOTINE ADDICTION

A Report of the Surgeon General, 1988

Major Conclusions

- Cigarettes/tobacco products are addicting
- Nicotine is the drug that causes addiction
- Pharmacologic/behavioral processes determining tobacco addiction are similar to those determining addiction to heroin/cocaine

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NICOTINE ADDICTION

Criteria for Drug Dependence

- Highly controlled or compulsive use
- Psychoactive effects
- Drug-reinforced behavior



Behavior often involves:

- Stereotypic use patterns
- Recurrent drug cravings
- Use despite harmful effects

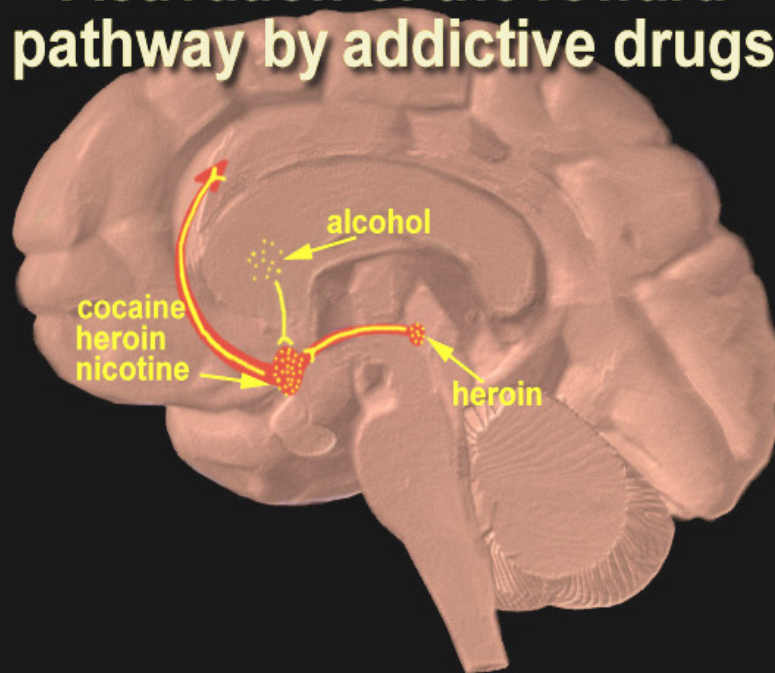
Drug often produces:

- Tolerance
- Physical dependence
- Pleasant (euphoriant) effects

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NICOTINE ADDICTION

Activation of the reward pathway by addictive drugs



Nicotine acts on brain receptors leading to release of dopamine, norepinephrine and serotonin.

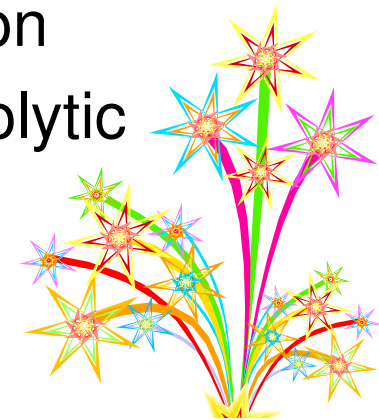
Dopamine may be the “master molecule” of addiction

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NICOTINE ADDICTION

Neuropharmacologic Effects of Nicotine:

Dopamine	→	Pleasure, well-being
Norepinephrine	→	Stimulation, arousal
Acetylcholine	→	Memory, cognition
Glutamate	→	Memory, cognition
GABA	→	Relaxation, anxiolytic
Endogenous opioids	→	Analgesia
Serotonin	→	Mood, appetite



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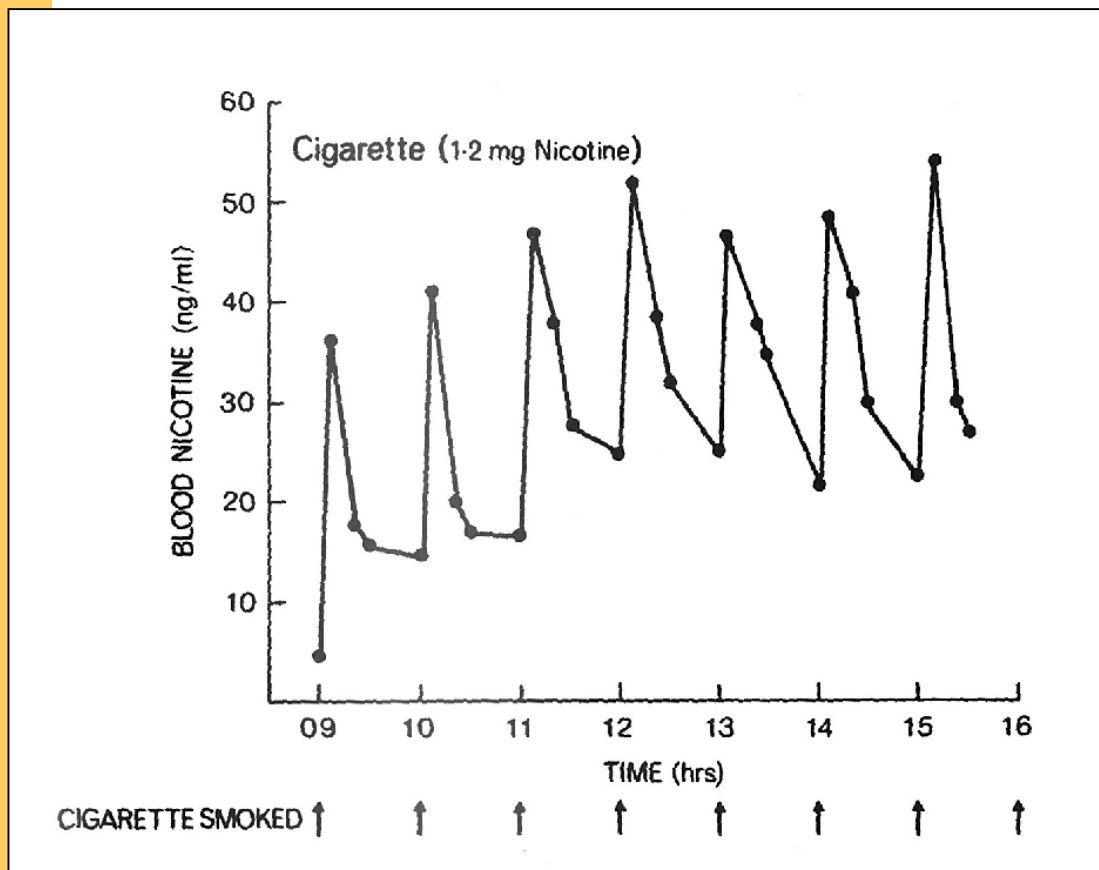
NICOTINE ADDICTION

- Smoker feels pleasure, reduced tension, enhanced performance, etc. (positive reinforcement)
- Tolerance develops (desensitization)
- Brain's chemistry is altered (density of nicotinic receptors in smokers is 100 to 300% higher than nonsmokers)
- Absence leads to withdrawal symptoms, such as irritability & craving (negative reinforcement)



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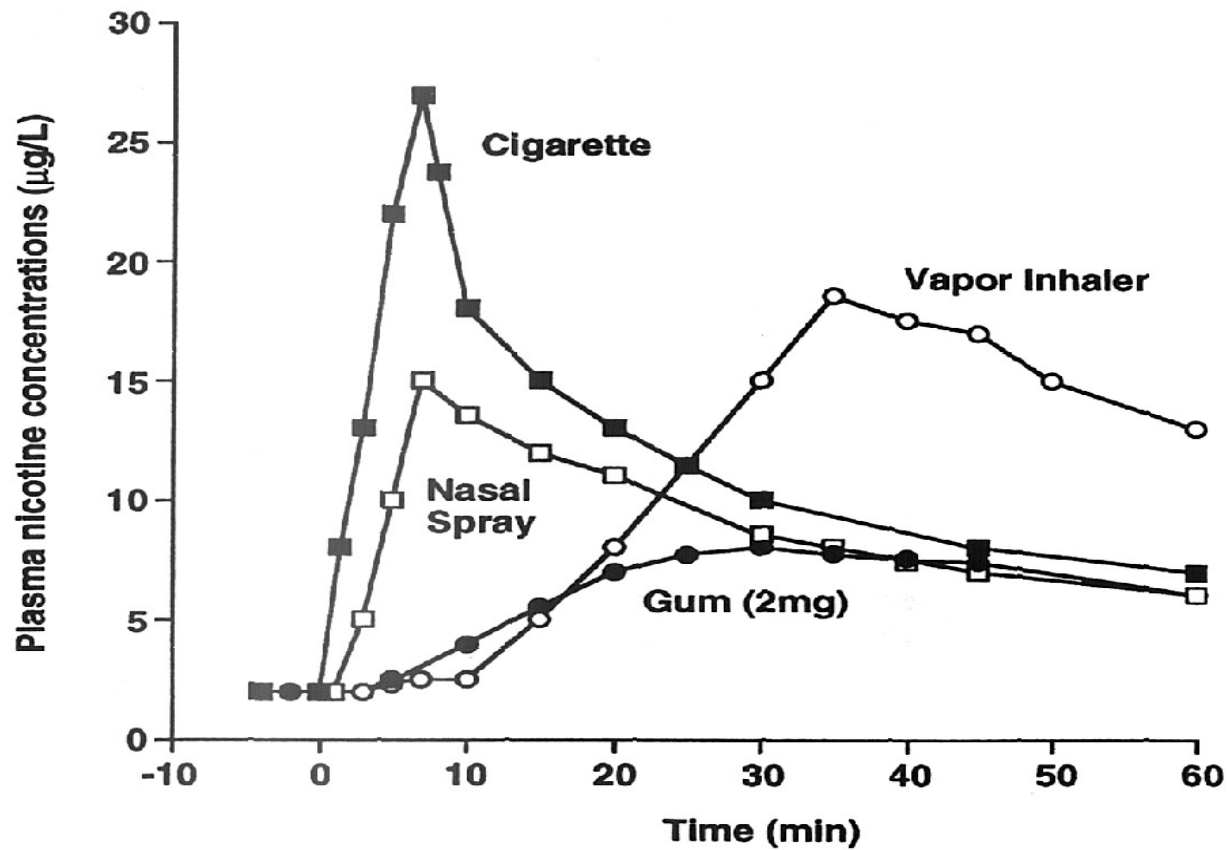
NICOTINE ADDICTION



Smoker needs to repeat dosing during waking hours in order to maintain optimal level of nicotine

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NICOTINE ADDICTION



References: 4 & 6

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TOBACCO DEPENDENCE

Behavioral, Social and Other Aspects of Tobacco Use & Dependence

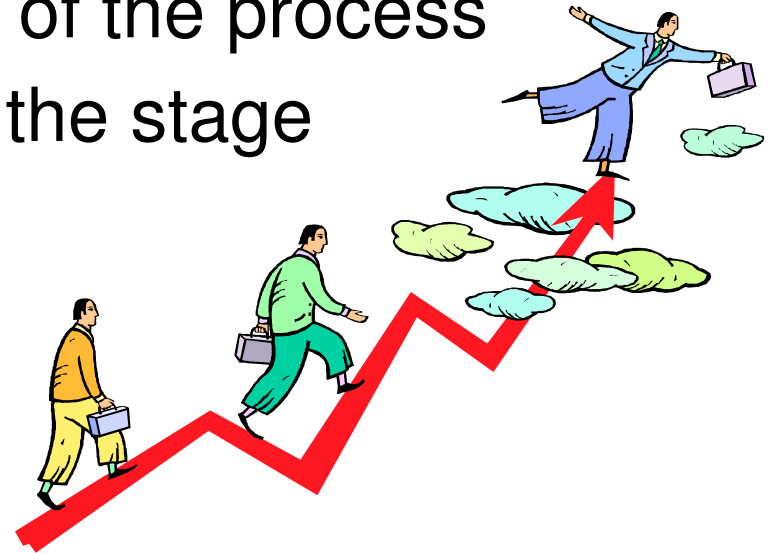
- Satisfaction derived from smoking and/or tobacco use behavior
- Conditioned responses (triggers)
- Attachment to the image of being a smoker/tobacco user (marketing influences)
- Peer, family, social and cultural influences
- Genetics, gender, comorbidity (medical/psychiatric)



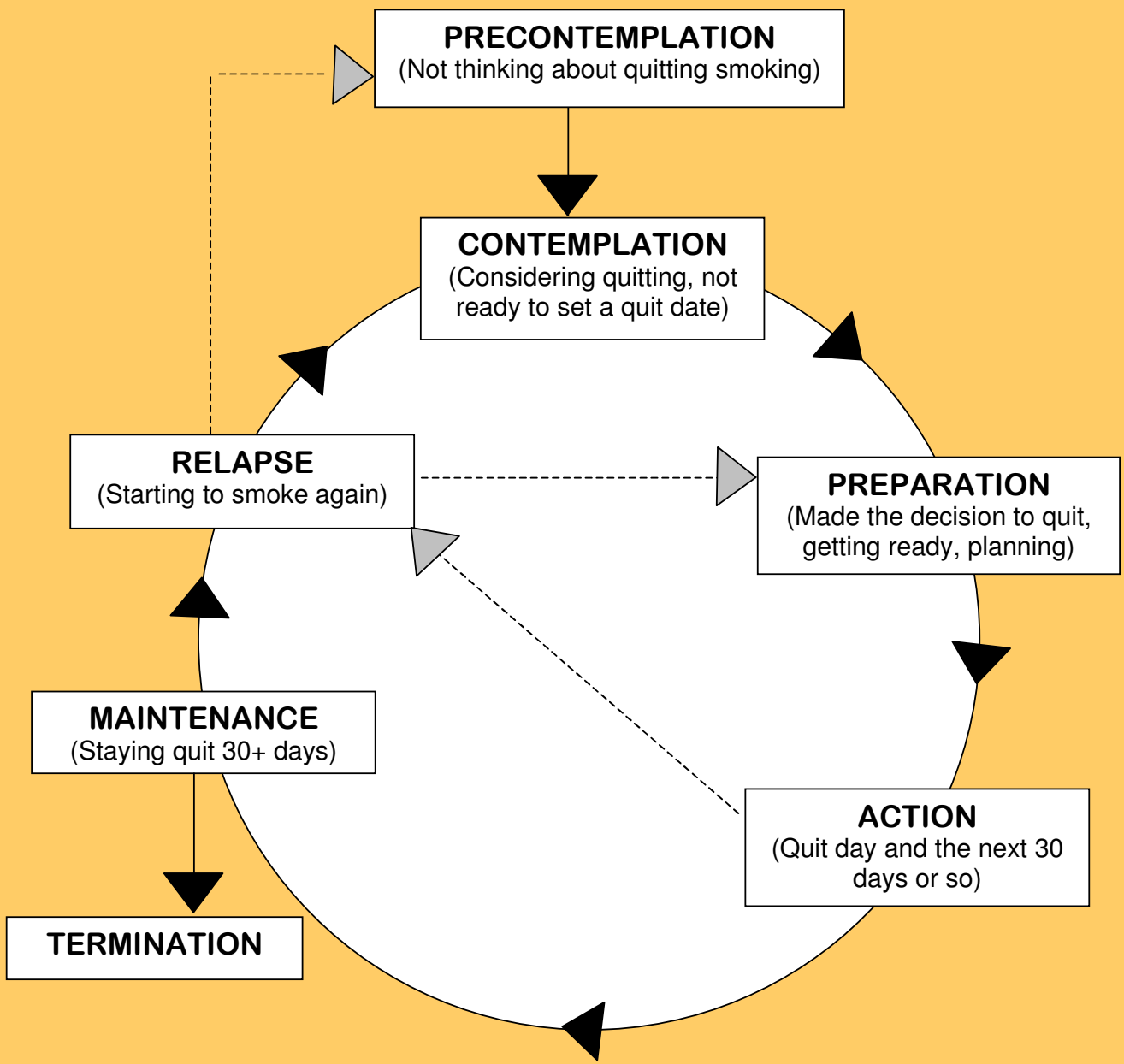
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STAGES OF CHANGE

- Change seen as a multistage process
- Success often involves repetitive cycling through of the stages
- Relapse is a normal part of the process
- Interventions that match the stage may be more effective
- The goal is to progress to the next stage



Matching Interventions to Stages of Change



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STAGES OF CHANGE



Goals and Objectives

- Precontemplation – plant a seed, create ambivalence
- Contemplation – tip the scales, decide to change
- Preparation – make a plan, identify and find tools
- Action – begin new behavior (“action” daily for 1 month)
- Maintenance – persist (new behavior becomes the norm)
- Relapse – recycle back to Preparation & Action

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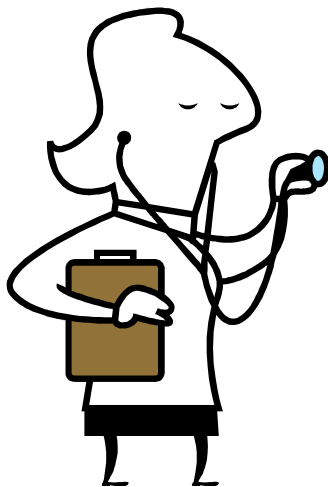
CLINICAL PRACTICE GUIDELINE

- “Smoking Cessation” clinical practice guideline published by AHCPR (now AHRQ), April 1996
- Based on 3,000 studies published between 1975-1994
- Updated “Treating Tobacco Use and Dependence” guideline published jointly by AHRQ, USPHS and NCI, June 2000
- Based on additional 3,000 studies published between 1995-1999



Understanding Tobacco Dependence

GUIDELINE – KEY FINDINGS



- Chronic condition, often requires repeated interventions
- Effective treatments exist, therefore:
- Every patient should be offered treatment (willing) or brief motivational intervention (unwilling)
- Essential: institutionalizing consistent identification, documentation and treatment of every tobacco user

Understanding Tobacco Dependence

GUIDELINE – KEY FINDINGS

- Brief treatment is effective and should be offered to all users (minimum care)
- Strong dose-response relation between intensity of counseling and effectiveness
- Three types counseling especially effective:
 - ✓ Providing practical counseling
 - ✓ Providing intra-treatment support
 - ✓ Helping secure extra-treatment support



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GUIDELINE – KEY FINDINGS



- Numerous effective pharmacotherapies exist (and should be used unless contraindicated)
- First-line pharmacotherapies include:

Bupropion SR	Nicotine gum
Nicotine patch	Nicotine inhaler
Nicotine lozenge	Nicotine nasal spray
- Second-line pharmacotherapies include:

Clonidine	Nortriptyline
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GUIDELINE – KEY FINDINGS

- Treatments are both clinically effective and cost-effective, therefore:
- Insurers and purchasers should ensure that:
 - ✓ Effective treatments (counseling and pharmacotherapy) are included as reimbursed benefits in all insurance plans
 - ✓ Clinicians are reimbursed for providing treatment



To download the *Treating Tobacco Use and Dependence* clinical practice guideline: <http://www.surgeongeneral.gov/tobacco>

Developing a Smoking Cessation Program in the Acute Care Setting

How to Implement an Effective Cessation Program

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How to Implement an Effective Cessation Program

The 5 As



- **ASK** - systematically identify tobacco use status of **EVERY** patient
- **ADVISE** - urge all tobacco users to quit in a clear, strong and personal way
- **ASSESS** - decide the patient's willingness to quit (if not willing, implement 5Rs)

How to Implement an Effective Cessation Program

The 5 As



- **ASSIST** - aid willing patients in developing a quit plan:
 - ✓ Support
 - ✓ Medications
 - ✓ Coping/problem-solving skills
- **ARRANGE** - schedule for follow-up

How to Implement an Effective Cessation Program

The 5 Rs



- **RELEVANCE** - help make connection to specific personal reasons to stop
- **RISKS** - ask patient to identify potential negative consequences of continued tobacco use
- **REWARDS** - ask patient to identify potential benefits of tobacco cessation

How to Implement an Effective Cessation Program

The 5 Rs



- **ROADBLOCKS** - ask patient to identify barriers to quitting and make a plan to address them
- **REPETITION** - repeat motivational intervention at EVERY encounter

How to Implement an Effective Cessation Program

Relapse Prevention



- **Minimal Practice** – use open-ended questions and encourage active discussion of successes/problems
- **Prescriptive** – help patient identify ways to cope with threats: no support, negative mood, withdrawal, weight gain, flagging motivation, etc.

How to Implement an Effective Cessation Program

Systems Changes: 6 Strategies

- Implement a tobacco-user identification system
- Provide education, resources, feedback to promote interventions
- Dedicate staff to provide treatment and assess delivery of treatment in staff performance evaluations
- Promote policies that support and provide services



How to Implement an Effective Cessation Program

Systems Changes: 6 Strategies

- Insurers/MCOs should include both counseling and pharmacotherapy as paid/covered services
- Insurers/MCOs should reimburse for delivery of effective treatments and include these interventions among defined duties of clinicians



How to Implement an Effective Cessation Program

Needs Assessment

WHAT	WHO	HOW	EDUCATION	MATERIALS
ASK	Intake nurse? ED admitting?	Part of vital signs? Add to admission form?	Simple instructions?	Amend current forms? Add to electronic intake?
ADVISE	RN? NP? PA? MD?	During intake or exam? (document in chart)	Read guideline? Take online course(s)?	Quick Reference Guide? Use Internet?
ASSESS	RN? NP? PA? MD?	During intake or exam? (document in chart)	Read guideline? Take online course(s)?	Quick Reference Guide? Use Internet?
ASSIST	RN? NP? PA? MD? Staff "Smoking Cessation (SC) "Specialist" or Patient Educator?	Bedside consult? Refer to Quitline or local program or "Specialist"? Give self-help resources?	Read guideline? Simple instructions (for referrals)? Take online course(s)? Provide staff training?	Quick Reference Guide? List of Quitlines, local pro- grams, online resources? Use CTRI training manual?
ARRANGE	RN? NP? PA? MD? Staff SC "Specialist"?	Refer to Quitline or local program or "Specialist" or PCP/clinic?	Simple instructions?	List of Quitlines, local pro- grams, online resources? Referral form (develop)?
MOTIVATE	RN? NP? PA? MD? Staff SC "Specialist"?	Provide motivational intervention? Refer to Quitline/Specialist? Self- help resources?	Read guideline? Simple instructions (for referrals)? Take online course(s)? Provide staff training?	Quick Reference Guide? List of Quitlines, online resources? Use CTRI training manual?
PREVENT RELAPSE	RN? NP? PA? MD? Staff SC "Specialist"?	Counsel? Refer to Quitline or Specialist? Provide self-help resources?	Read guideline? Simple instruc- tions (for referrals)? Take online course(s)? Provide staff training?	Quick Reference Guide? List of Quitlines, online re- sources? Use CTRI manual?

How to Implement an Effective Cessation Program

Resources for the Healthcare Professional



Treating Tobacco Use and Dependence (UW-CTRI)

Free 1-hour CME/Pharmacy CE course:
www.cme.wisc.edu/online/ctri

Tobacco CME (funded by NHLBI)

Managed by Clinical Tools, Inc; free CME courses on
tobacco topics: www.TobaccoCME.com

For additional online courses:
www.aptna.org/Online_Courses1.html

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Resources for the Patients



QUITLINES

- DC Quitline (ALF) 1-800-399-5589
- Great Start Quitline 1-866-66-START
- ALA Call Center 1-800-548-8252
- NCI Quitline 1-877-44U-QUIT

LOCAL PROGRAMS

American Lung Association [1-800-LUNG USA](https://www.lung.org)

How to Implement an Effective Cessation Program

Resources for the Patients

PRINT MATERIALS



- USPHS publications (English/Spanish, free)
 - ✓ Download: www.surgeongeneral.gov/tobacco
 - ✓ Order: AHRQ www.ahrq.gov/clinic/tobacco/order.pdf
- Sentara Quit Kit (booklet and audiotape/CD, free)
Call Smoke-Free Virginia Helpline: 1-877-856-5177

ONLINE RESOURCES

- Freedom From Smoking www.lungusa.org/ffs
- Federal Online Program www.smokefree.gov
- Smoke-Free Virginia Website www.smokefreevirginia.org

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Questions & Answers



Thank you for participating