EVIDENCE-BASED INTERVENTIONS TO HELP PATIENTS QUIT TOBACCO

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Overview of Tobacco Use

The World Health Organization describes smoking as an

EPIDEMIC

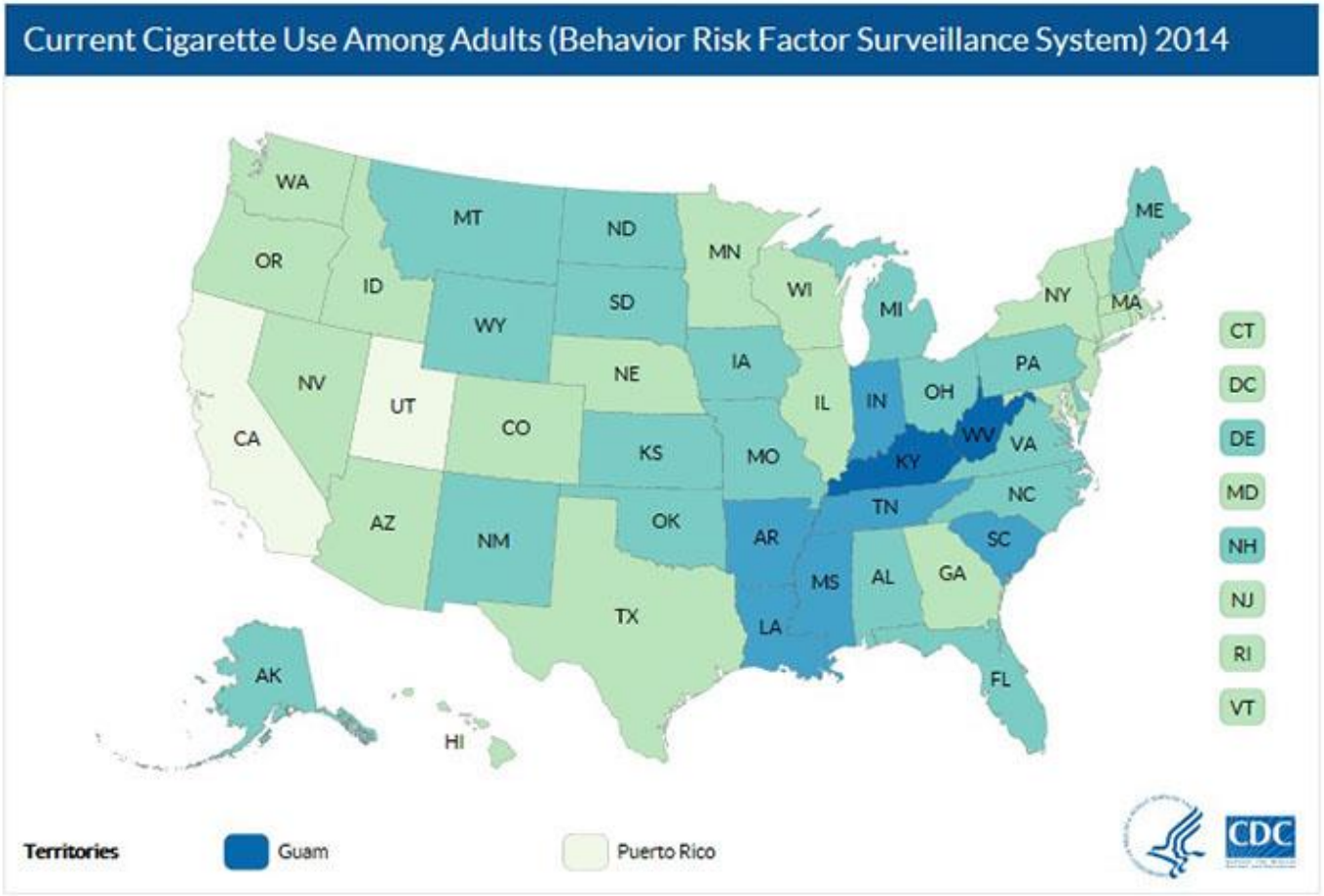
that currently causes nearly 6 million deaths per year and will lead to 8 million deaths annually by 2030 if current trends continue

Source: WHO Report on the Global Tobacco Epidemic, 2011. Geneva: World Health Organization, 2011

Current Trends - U.S.

- In 2014, nearly 17 of every 100 U.S. adults aged 18 years or older (15.1%) currently* smoked cigarettes.
- Cigarette smoking is the leading cause of preventable disease and death in the United States, accounting for more than 480,000 deaths every year, or 1 of every 5 deaths
- Smoking costs the United States billions of dollars each year.

Source: CDC, 2018



Source: CDC, 2016: http://www.cdc.gov/tobacco/data_statistics/fact_sheets/adult_data/cig_smoking/index.htm#national

Tobacco Dependence

- Nicotine is the addictive agent in tobacco products
- Smoking habits are established early
- 9 out of 10 smokers started before the age of 18
- Young people greatly overestimate their own ability to quit
- Addiction develops quickly
- Withdrawal symptoms appear in adolescents within a few weeks of smoking 2 cigarettes per week
- The more a person smokes, the more nicotine receptors they develop, so they need an increased number of cigarettes to manage the symptoms of withdrawal
- Avoiding withdrawal is the reason many continue to smoke

DSM V: Tobacco Use Disorder

- A problematic pattern of tobacco use leading to clinically significant impairment or distress, as manifested by at least two symptom criteria occurring within a 12-month period.

- Three levels of severity based upon number of symptoms present (at least 2 must be present)
  - Mild: 2-3 symptoms
  - Moderate: 4-5 symptoms
  - Severe: 6 or more symptoms

Tobacco Use Disorder: Diagnostic Criteria

1. Taken in larger amounts or over longer period than intended
2. Persistent desire or unsuccessful efforts to cut down or quit
3. Great deal of time spent to obtain or use
4. Craving
5. Recurrent use resulting in failure to fulfill major role obligations
6. Use despite persistent social or interpersonal problems
7. Giving up or reducing important activities because of use
8. Recurrent use in physically hazardous situations
9. Use despite persistent physical or psychological problems
10. Tolerance
11. Withdrawal

Widely Used Drugs of Dependence

Drug and Action	Number Who Used in the Past Month (12 years and older)
Heroin	289,000
Methamphetamines	595,000
Cocaine	1.5 million
Marijuana/Hashish	19.8 million
Alcohol	16.5 million heavy drinkers
Nicotine	**66.9 million**

Source: Substance Abuse and Mental Health Service Administration: Results from the 2013 National Survey on Drug Use & Health: Summary of National Findings.

Challenges to Stopping Tobacco Use

- 69% of US smokers say they want to quit
- Half of quit attempts fail in the first week
- Substance use and psychiatric disorders
- Strong nicotine dependency (first cigarette within 30 min. of waking)
- Living/socializing with other smokers (less social support in quitting)
- Lack of confidence in ability to quit

In Summary

- Tobacco use is a relapsing disorder that starts in childhood
- Fits the definition of a chronic condition or disease
- Needs a long-term management approach

Nicotine Addiction

Effective Clinical Strategies

The PHS Guideline provides evidence for three major strategies for intervening with patients in the clinical setting:

1. Counseling
   - Routine, brief interventions with all patients
   - More intensive behavioral counseling, including telephone counseling
2. Pharmacological support
3. Systems support

PHS Guidelines, 2008

Objectives

Provide a framework for care providers to assist patients in quitting tobacco use:

- Assess and document tobacco use status of every patient
- Provide quitting intervention to all tobacco users
- Treat behavioral/psychological aspects of tobacco addiction with behavioral interventions
- Treat biologic aspects of tobacco addiction with pharmacotherapy

PHS Guidelines, 2008

Counseling

Recommendations

- Providing smokers with practical counseling (problem solving skills/skills training)
- Providing support and encouragement as part of treatment.

    1. Motivational Interviewing
    2. Cognitive Behavioral Strategies

Motivational Interviewing

A patient-centered counseling intervention focusing on exploring a tobacco user's feelings, beliefs, ideas, and values regarding tobacco use in an effort to uncover any ambivalence about using tobacco.

Cognitive Behavioral Strategies

Rearrange environmental cues or triggers

- **Trigger** — situation, behavior, thought or mood commonly associated with smoking or dipping
- **Setting a goal of self-management:**
  - For patients to systematically practice using coping strategies to not smoke or dip in identified trigger situations

Quitting tobacco consists of three phases :

Pre-Cessation (Getting ready)

Cessation (Quitting)

Relapse Prevention (Maintenance)

Pharmacological Support

Who Should Be Offered Pharmacotherapy?

- All smokers trying to quit should be offered medication, except when contraindicated or for specific populations for which there is insufficient evidence of effectiveness:

  Pregnant women

  Light smokers

  Adolescents

- Use of pharmacotherapy ***doubles*** long term quit rates

- Pharmacotherapy + counseling increases success

First-line Medications

- Varenicline (Chantix)*
- Bupropion (Zyban/Wellbutrin)*
- Nicotine patch
- Nicotine gum
- Nicotine lozenge
- Nicotine inhaler*
- Nicotine spray*

**Rx Only*

Medications

- Varenicline (Chantix)-Chantix acts at sites in the brain affected by nicotine and may help in two ways:
  - Providing some nicotine effects to ease the withdrawal symptoms and
  - Blocking the effects of nicotine from cigarettes if they resume smoking

- Bupropion (Zyban/Wellbutrin)-decreases desire to smoke. Can be used with nicotine replacement products.

Nicotine Replacement Therapy (NRT)

Patch, gum, lozenge, inhaler*, spray*

- Alleviates nicotine withdrawal symptoms
- Can be used individually or ***combined***
- Safe in Acute Coronary Syndrome
- Studies show can be used while patient is still smoking

**Rx only*

Nicotine Patch: Long Acting

- Slow onset, produces steady nicotine levels for most of the day
- Prolonged withdrawal relief
- Simplest to use
- Best adherence
- No control of nicotine levels
- No way to respond to craving through day

Short Acting NRT

- Rapid onset but shorter duration
- Nasal spray: most rapid (5-10 minutes) but can cause local irritation
- Nicotine gum, lozenge, oral inhaler: absorbed through oropharynx (20-30 min.)
- Can regulate blood levels by adjusting use
- Often fail to administer often enough
- Patient education on proper use

NRT Dependence?

- NRT dependence potential is low: not absorbed through the lungs, does not mimic a cigarette's rapid delivery of nicotine to arterial circulation which contributes to addictiveness
- Patient education: important to explain this to the patient, so it will not be a barrier to trying NRT

Systems

Incorporating Best Practices Into Patient Care

Treatment Efficacy

No clinician	10.8% est. abstinence rate
One clinician type	18.3%
Two clinician types	23.6%
Three or more	23%

Source: PHS Guideline, 2008

Treatment Efficacy x Contact Time

No minutes	11% est. abstinence rate
1-3 minutes	14.4%
4-30 minutes	18.8%
31-90 minutes	26.5%
91-300 minutes	28.4%
> 300 minutes	25.5%

Source: PHS Guideline, 2008

Two Key Questions to Ask Patients

- “Do you smoke?”
- “Do you want to quit?”

Follow up questions with PHS Clinical Practice Guideline recommendations.

PHS Clinical Practice Guidelines

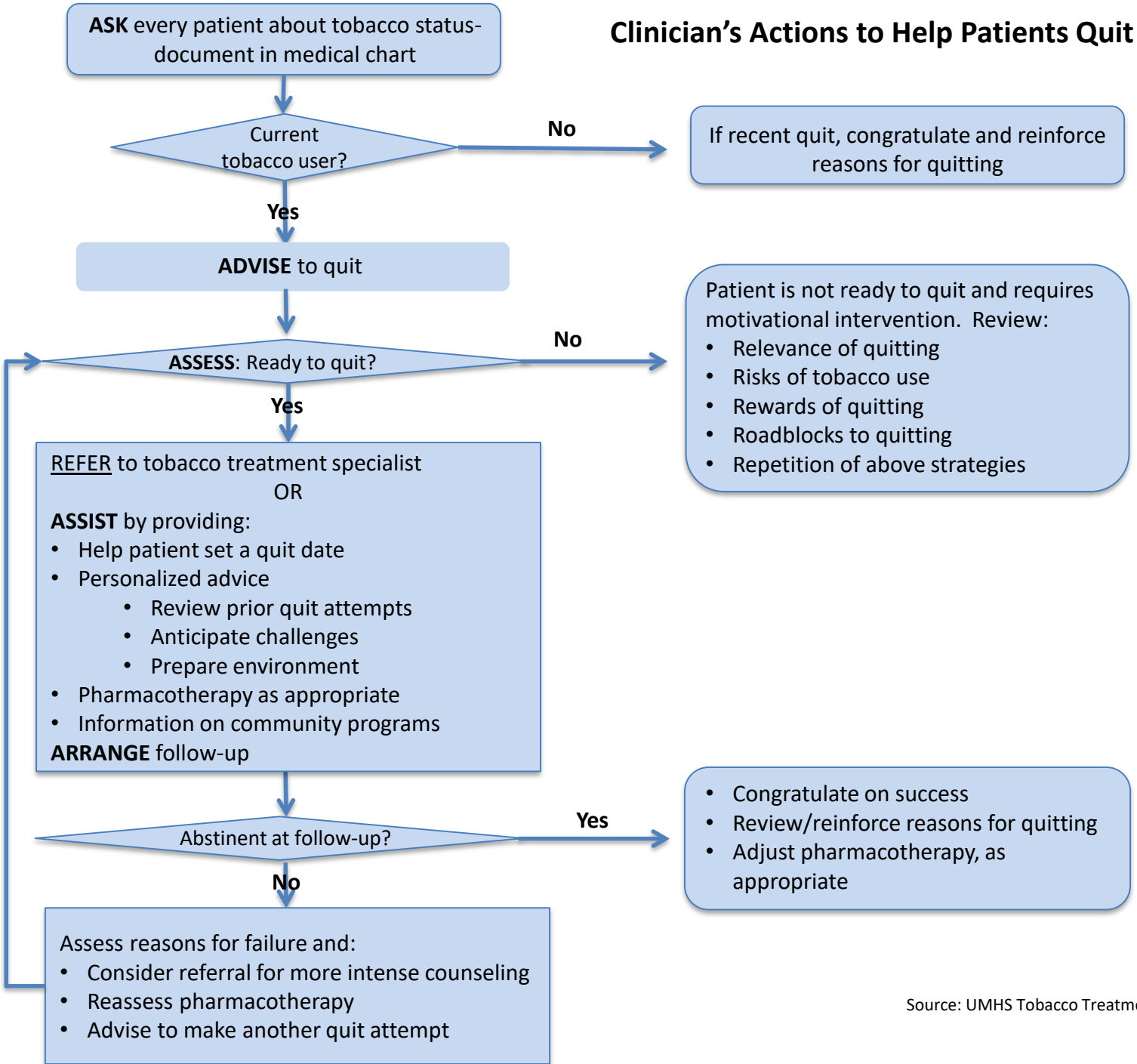
The 5 A's

- Ask
- Advise
- Assess

REFER

- Assist
- Arrange

Clinician's Actions to Help Patients Quit Tobacco Use



MICHIGAN MEDICINE
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Source: UMHS Tobacco Treatment Guideline, March 2012

Resources

- USPHS 2008 Tobacco Treatment Guidelines http://bphc.hrsa.gov/buckets/treatingtobacco.pdf
- CDC Best Practices for Comprehensive Tobacco Control http://www.cdc.gov/tobacco/stateandcommunity/best_practices/pdfs/2014/comprehensive.pdf
- Association for the Treatment of Tobacco Use and Dependence (ATTUD) http://www.cdc.gov/tobacco/stateandcommunity/best_practices/pdfs/2014/comprehensive.pdf
- University of Michigan Tobacco Consultation Service www.mhealthy.umich.edu/tobacco
- NAQC Quitline Map http://map.naquitline.org

Contact Information

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