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Tobacco Cessation in Cancer Survivors: What Comprehensive Cancer Control Coalitions Need to Know

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Presentation Overview: Learning Objectives

1. Risks of persistent smoking and the benefits of cessation for cancer patients/survivors
2. Prevalence of smoking among cancer patients/survivors
3. Best practices and current gaps in treating tobacco dependence among cancer patients/survivors
4. Patient, provider and systems-level barriers to treating tobacco dependence in cancer patients/survivors

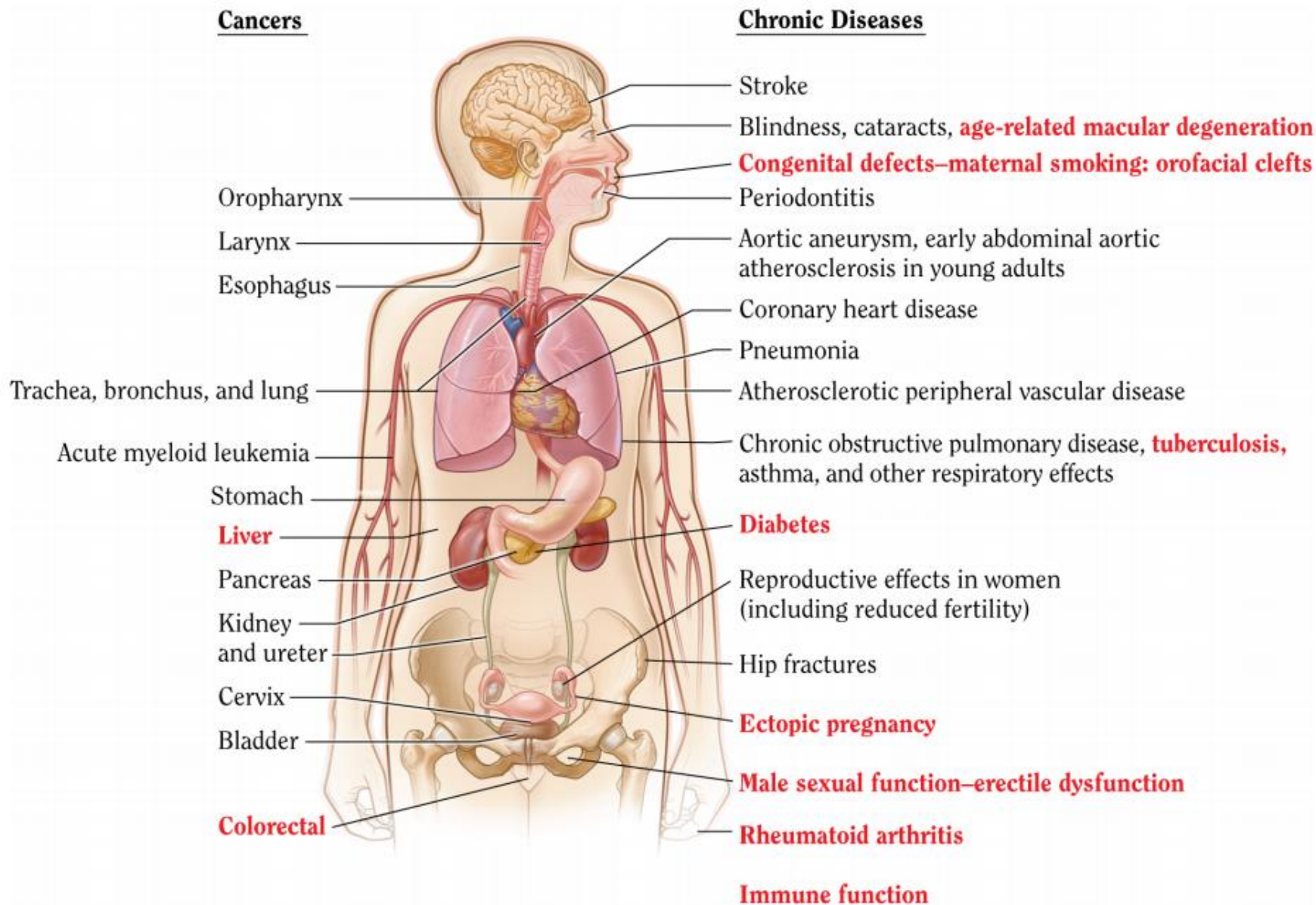


Cancer and Smoking

- One-third of all cancers are smoking-related
- Smoking is responsible for about one-third of all cancer deaths
- Smoking is related to at least 12 types of cancer



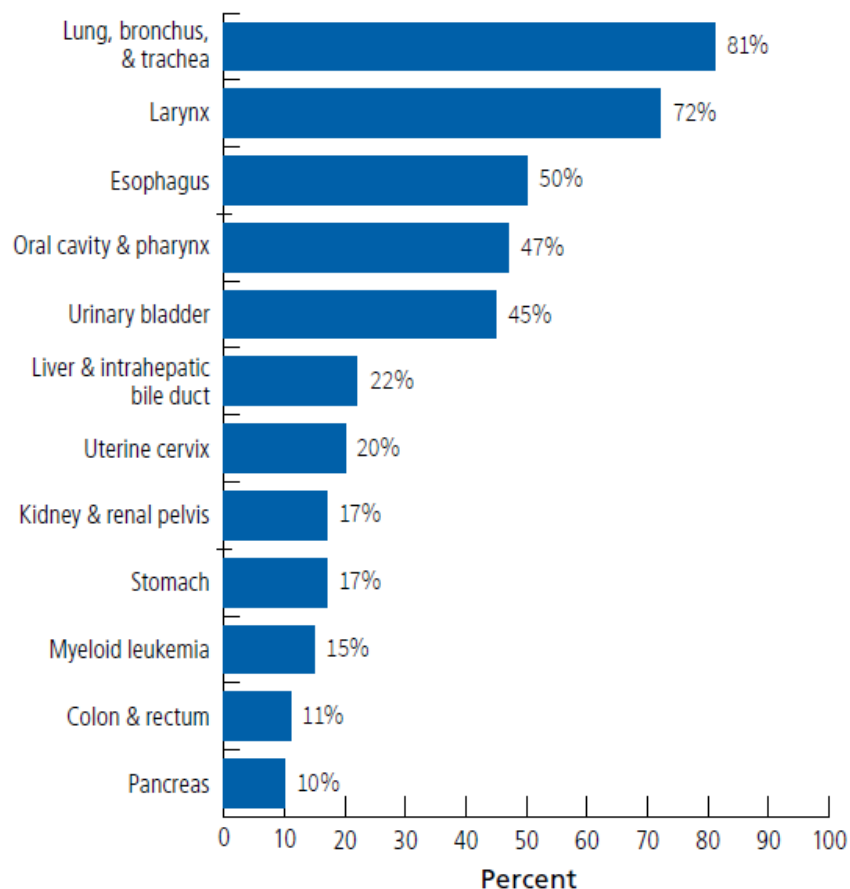
Health Consequences of Smoking



Source: Surgeon General's Report, 2014

Cancer Deaths Attributed to Cigarettes

Figure 4. Proportion of Cancer Deaths Attributable to Cigarette Smoking in Adults 30 Years and Older, US, 2014



Source: Islami F, Goding Sauer A, Miller KD, et al. *CA Cancer J Clin.* Nov 2017.

Source: American Cancer Society *Facts & Figures 2019*, <https://www.cancer.org/content/dam/cancer-org/research/cancer-facts-and-statistics/annual-cancer-facts-and-figures/2019/cancer-facts-and-figures-2019.pdf>



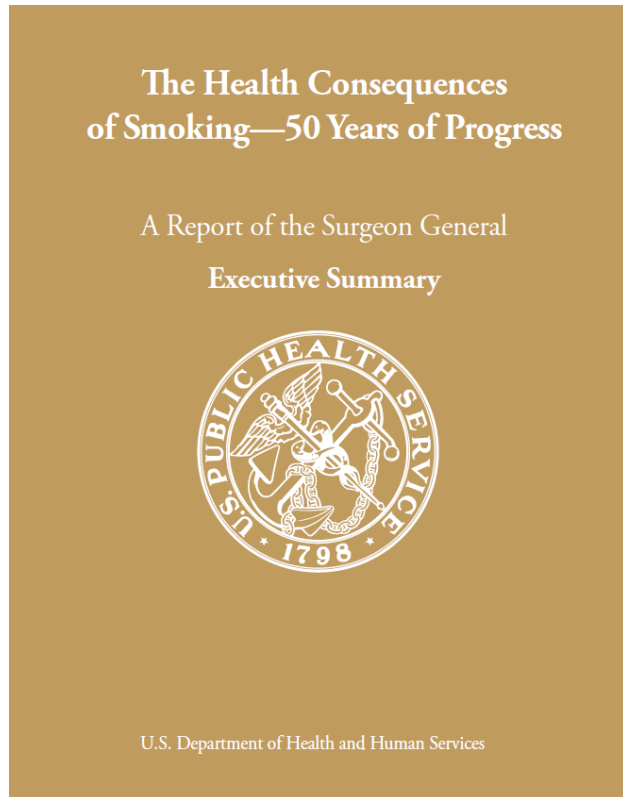
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What are the risks of smoking and the benefits of cessation after a cancer diagnosis?



Health Consequences of Smoking for Cancer Patients/Survivors



- Summarizes compelling evidence for adverse health outcomes of cigarette smoking in cancer patients and survivors
 - Cigarette smoking increases all-cause mortality
 - Cigarette smoking increases cancer-specific mortality
 - Cigarette smoking increases risk for second primary cancers.
 - Cigarette smoking increases risk for disease recurrence .
- Adverse health outcomes provide strong justification for the integration of evidence-based tobacco treatment in cancer care settings

Treatment Complications Associated with Persistent Smoking in Lung Cancer Care

Surgery

- Increased complications from general anesthesia
- Increased risk of postoperative pulmonary complications
 - Recommend quit > 6 wks pre-op (Lugg et al 2017)
- Increased risk of infection
- Detrimental effects on wound healing
 - Compromised capillary blood flow
 - Increased vasoconstriction

Radiation

- Reduced treatment efficacy
- Increased toxicity and side effects
 - Xerostomia, oral mucositis, loss of taste, pneumonitis, soft tissue and bone necrosis, poor voice quality

Chemotherapy

- Exacerbation of side effects: immune suppression, weight loss, fatigue, cardiac toxicity
- Drug interactions/toxicity
- Increased incidence of infection

Palliative Care

- Poor pain control
- Respiratory distress
- Home oxygen therapy
- Hemodynamic instability
- Poor quality of life



Why Bother?

Cancer-specific Health **Benefits** of Smoking Cessation

- Improves survival
- Decreases risk of disease recurrence
- Decreases risk of second primary cancers
- Decreases risk of treatment (surgery, radiation, chemotherapy) side effects and complications
- Improves treatment response and effectiveness
- Decreases risk of other tobacco-related comorbid conditions (CVD, COPD)
- Improves quality of life (better pain control, reduced distress/stigma)



Promoting Smoking Cessation Reduces Cost of Cancer Care

Original Investigation | Oncology




April 5, 2019

Attributable Failure of First-line Cancer Treatment and Incremental Costs Associated With Smoking by Patients With Cancer

Graham W. Warren, MD, PhD^{1,2}; Kathleen B. Cartmell, PhD³; Elizabeth Garrett-Mayer, PhD⁴; et al



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**What are the rates of
persistent smoking among
cancer patients/survivors?**



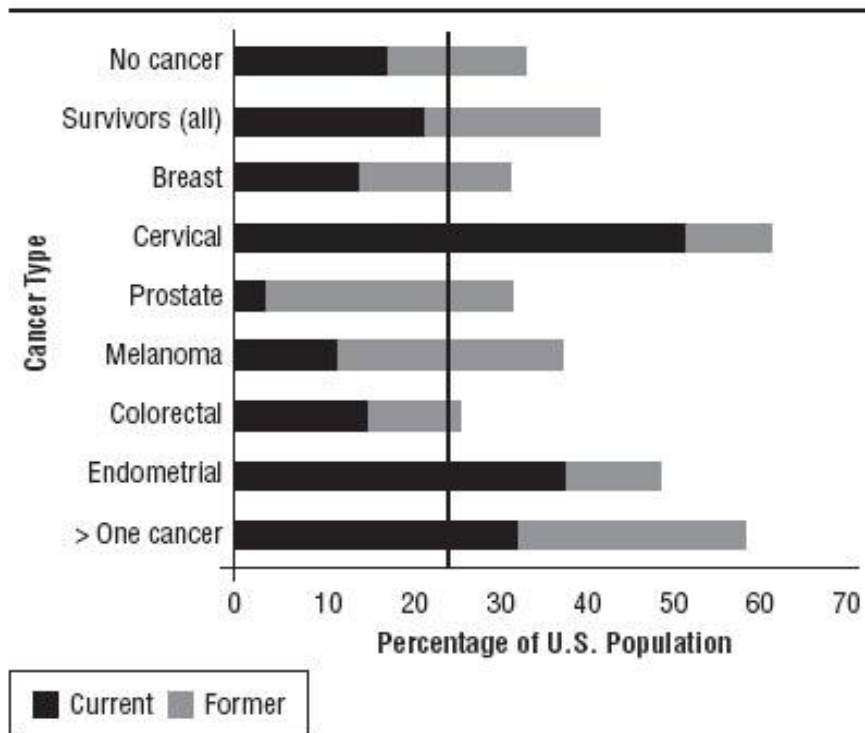
Prevalence of Smoking Among Adult Survivors with Tobacco-related Cancers (TRCS), Non-tobacco-related Cancers and No Cancer: BRFSS (2009)*

Tobacco Use	TRCS	SE	Non-TRCS	SE	No Cancer	SE	p value
Current Smoker	27%	0.009	16%	0.004	18%	0.001	<0.001
Current Smokeless	3%	0.004	3%	0.002	4%	0.001	<0.001
Former Smoker	33%	0.095	26%	0.004	24%	0.001	<0.001

Source: Underwood et al, 2012, *Adjusted for race, ethnicity, sex, age, employment and insurance
 TRCS= bladder, cervical, esophageal, kidney, leukemia, lung, oral, pharyngeal, pancreatic, stomach



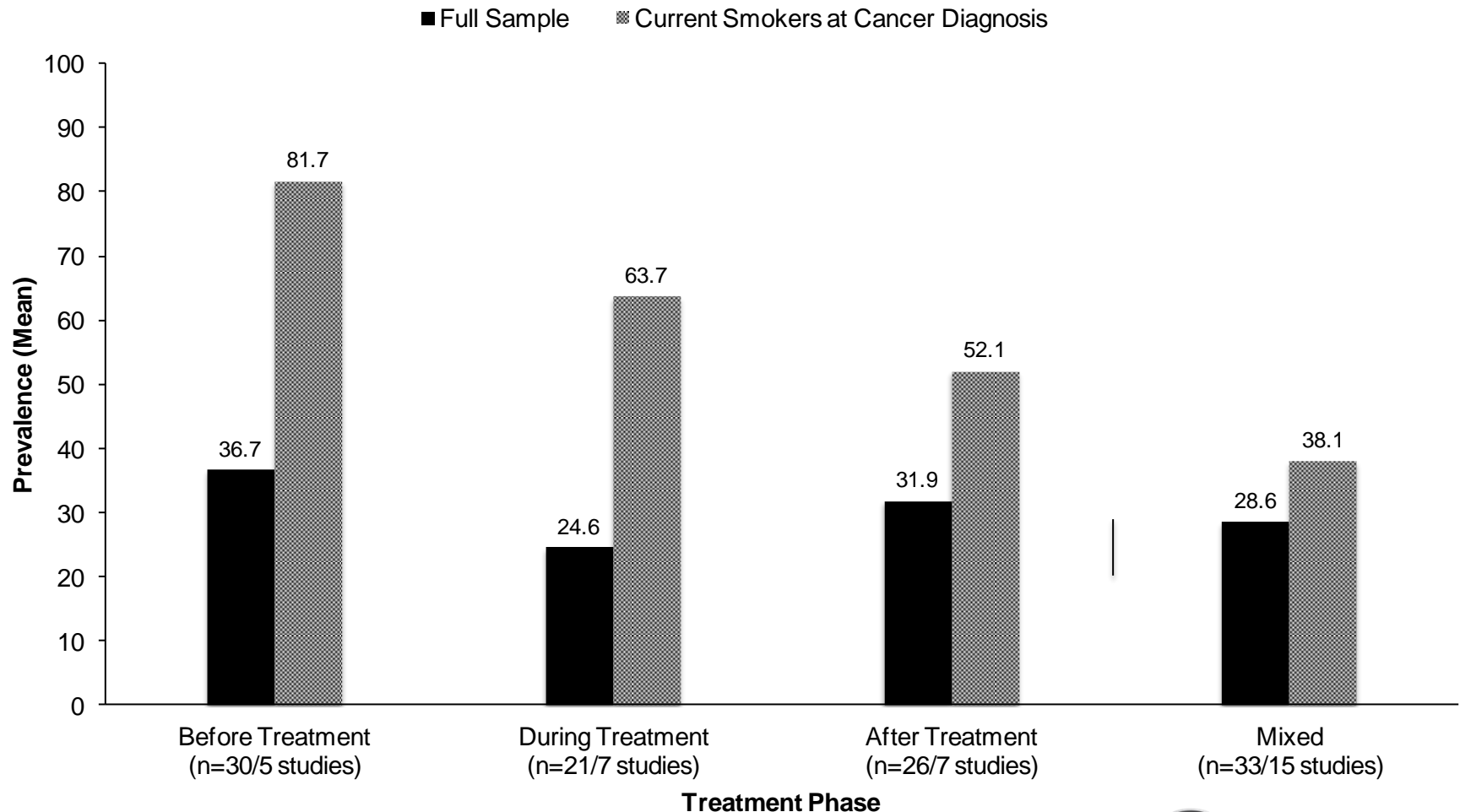
Smoking Prevalence in Adult Survivors by Cancer Site



Note. The vertical line represents the 2003 Behavioral Risk Factor Surveillance System (Centers for Disease Control and Prevention, 2007a) national average for adult current smokers (22%). No significant differences ($p = 0.3$) existed in smoking prevalence between those with and without cancer.

Figure 1. Smoking Prevalence

Patterns and Prevalence of Smoking Following Diagnosis of Lung, Head/Neck Cancers



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Source: Burris, Studts, DeRosa & Ostroff, 2015, CEBP



**What about patients' use of
electronic cigarettes and
other electronic nicotine
delivery systems (ENDS)?**



Electronic Cigarettes

What are Electronic Nicotine Delivery Systems (ENDS)?

Electronic cigarettes, as well as, vaporizers, vape pens, hookah pens and e-pipes are all electronic nicotine delivery systems (ENDS), designed to substitute for and simulate tobacco smoking. Often resembling cigarettes, cigars or pipes, these products deliver nicotine and other substances to the user in the form of a vapor. The larger devices such as tank systems or mods have little or no resemblance to cigarettes at all.

All ENDS have three major components: 1) a cartridge containing nicotine; 2) a battery-operated heating element, and; 3) an atomizer.¹ Vaporizing, vaping or e-smoking occurs when the battery heats (but does not burn) the nicotine in the cartridge as the user inhales and a visible vapor is produced.² On the electronic cigarette, the end of the tube lights up as if the cigarette is burning. All ENDS are considered to be **tobacco products** under the Family Smoking Prevention and Tobacco Control Act and therefore ENDS are now regulated by the U.S. Food and Drug Administration.^{1,2}



Are ENDS products safe for use?

The long-term health risks posed by ENDS products are unknown. The U.S. Food and Drug Administration (FDA) and leading public health organizations have expressed concern regarding the lack of clinical studies on the safety and effectiveness of ENDS.³ The FDA now recognizes that some tobacco products may be less harmful than others; however, most public health experts agree on the need for more scientific studies to confirm unproven safety claims regarding ENDS.¹

It has been found that ENDS vapors are not just water and nicotine, often containing levels of propylene glycol, volatile organic compounds, flavor additives, tobacco specific nitrosamines that can cause cancer, and heavy metals. These metals can be found at "equal to or higher concentrations in the ENDS product compared to a regular cigarette" and can cause respiratory distress to some users.³

Cancer



Original Article

Electronic Cigarette Use Among Patients With Cancer

Characteristics of Electronic Cigarette Users and Their Smoking Cessation Outcomes

Sarah P. Borderud, MPH¹; Yuelin Li, PhD¹; Jack E. Burkhalter, PhD¹; Christine E. Sheffer, PhD²; and Jamie S. Ostroff, PhD^{1*}

VOLUME 33 • NUMBER 8 • MARCH 10 2015

JOURNAL OF CLINICAL ONCOLOGY

ASCO SPECIAL ARTICLE

Electronic Nicotine Delivery Systems: A Policy Statement From the American Association for Cancer Research and the American Society of Clinical Oncology

Thomas H. Brandon, Maciej L. Goniewicz, Nasser H. Hanna, Dorothy K. Hatsukami, Roy S. Herbst, Jennifer A. Hobin, Jamie S. Ostroff, Peter G. Shields, Benjamin A. Toll, Courtney A. Tyne, Kasisomayajula Viswanath, and Graham W. Warren

See accompanying article on page 885

Volume 9, Issue 4, Pages 423-582, e29-e33

Journal of Thoracic Oncology

E-Cigarettes and Cancer Patients

K. Michael Cummings, PhD, MPH, Carolyn M. Dresler, MD, MPA, John K. Field, PhD, FRCPath, Jesme Fox, MB ChB, MBA, Ellen R. Gritz, PhD, Nasser H. Hanna, MD, Norihiko Ikeda, MD, PhD, Jacek Jassem, MD, PhD, James L. Mulshine, MD, Matthew J. Peters, MD, FRACP, Nise H. Yamaguchi, MD, PhD, Graham Warren, MD, PhD, and Caicun Zhou, MD, PhD

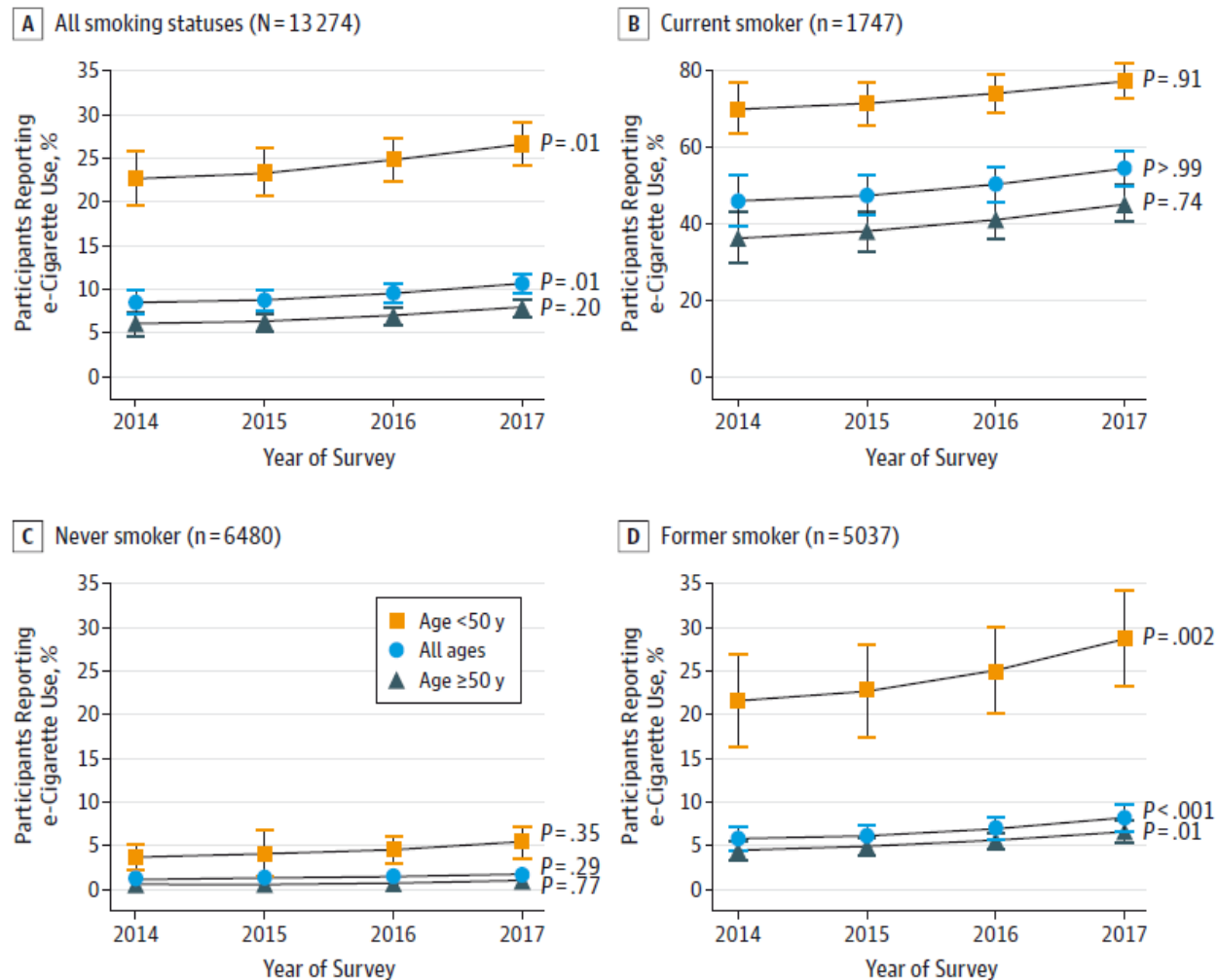
CDC Source for Updated Information about Lung Injury /Vaping
https://www.cdc.gov/tobacco/basic_information/e-cigarettes/severe-lung-disease.html



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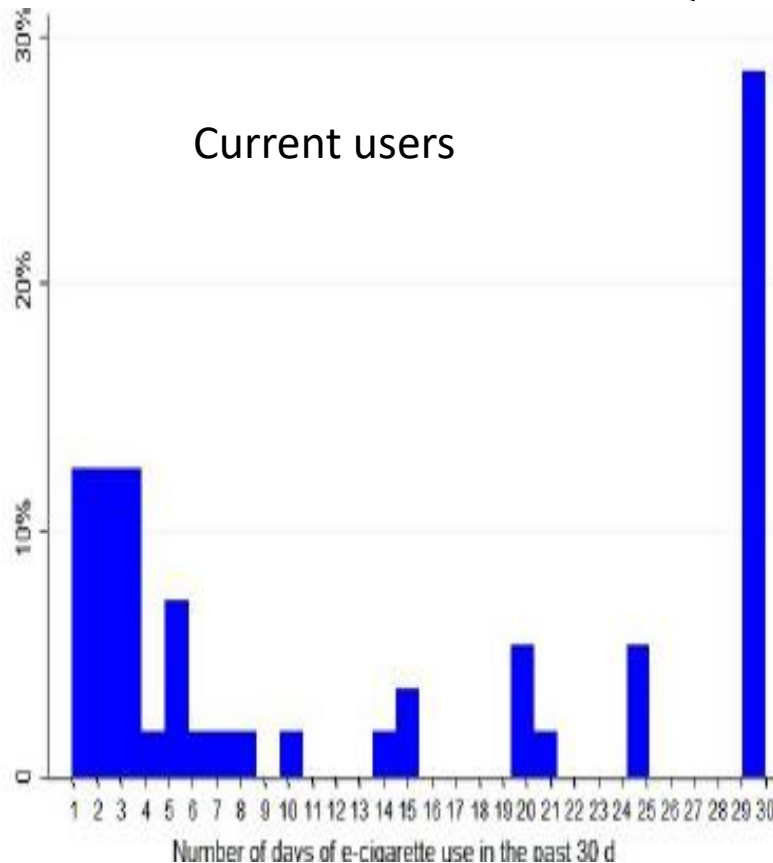
E-Cig Use Among Cancer Patients 2014-2017

Figure. Prevalence of e-Cigarette Use Stratified by Smoking Status



e-Cigarette use among all participants (A) reporting a diagnosis of cancer by year of survey, current smokers (B), never smokers (C), and former smokers (D). The error bars indicate 95% CIs. There were 10 patients with unknown smoking status.

Electronic Cigarette Use Among Cancer Patients Enrolled in Tobacco Treatment Trial (n= 302)



- Patterns
 - 49% ever use
 - 19% current use
- Primary Reason
 - 92% help to quit smoking

Kalkorhan et al 2018, *Cancer Medicine*



National Calls for Action: Tobacco Use Assessment and Treatment in Cancer Care

- National Cancer Institute
- American Society for Clinical Oncology: Quality (QOPI) measures
- AACR Policy Statement
- Oncology Nursing Society
- Commission on Cancer Accreditation
- Comprehensive Cancer Control National Partnership
- Meaningful use criteria for EHRs
- Joint Commission/Medicare adopted National Hospital Quality Measures



Comprehensive
Cancer Control



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Tobacco Cessation and Quality Cancer Care

- It is “incumbent on the cancer care community to incorporate effective tobacco cessation as an integral component of quality cancer care”
- Smoking status recommended as core clinical and research data element
- Tobacco cessation treatment recommended as standard of quality care



What are the current gaps in tobacco use assessment and treatment in cancer care?



National Cancer Institute Conference on Treating Tobacco Dependence at Cancer Centers

By Glen Morgan, PhD, Robert A. Schnoll, PhD, Catherine M. Alfano, PhD, Sarah E. Evans, PhD, Adam Goldstein, MD, MPH, Jamie Ostroff, PhD, Elyse Richelle Park, PhD, Linda Sarna, DNSc, RN, and Lisa Sanderson Cox, PhD

- Less than 50% of Cancer Centers have designated personnel to offer tobacco use treatment. The availability of tobacco use programs at cancer centers lags behind that of other models of supportive care (e.g., nutrition, pain)
- Recommend that Cancer Centers integrate assessment and treatment of tobacco use into routine clinical care
- Call for more research on developing and evaluating cost-effective cessation treatment delivery models in cancer care



Tobacco Use Treatment at the U.S. National Cancer Institute's Designated Cancer Centers

Adam O. Goldstein, M.D., M.P.H.,¹ Carol E. Ripley-Moffitt, M.Div., C.T.T.S.,¹ Donald E. Pathman, M.D., M.P.H.,^{1,2} & Katharine M. Patsakham, M.P.H., C.T.T.S.¹

¹ *Department of Family Medicine, UNC School of Medicine, University of North Carolina, Chapel Hill, NC*

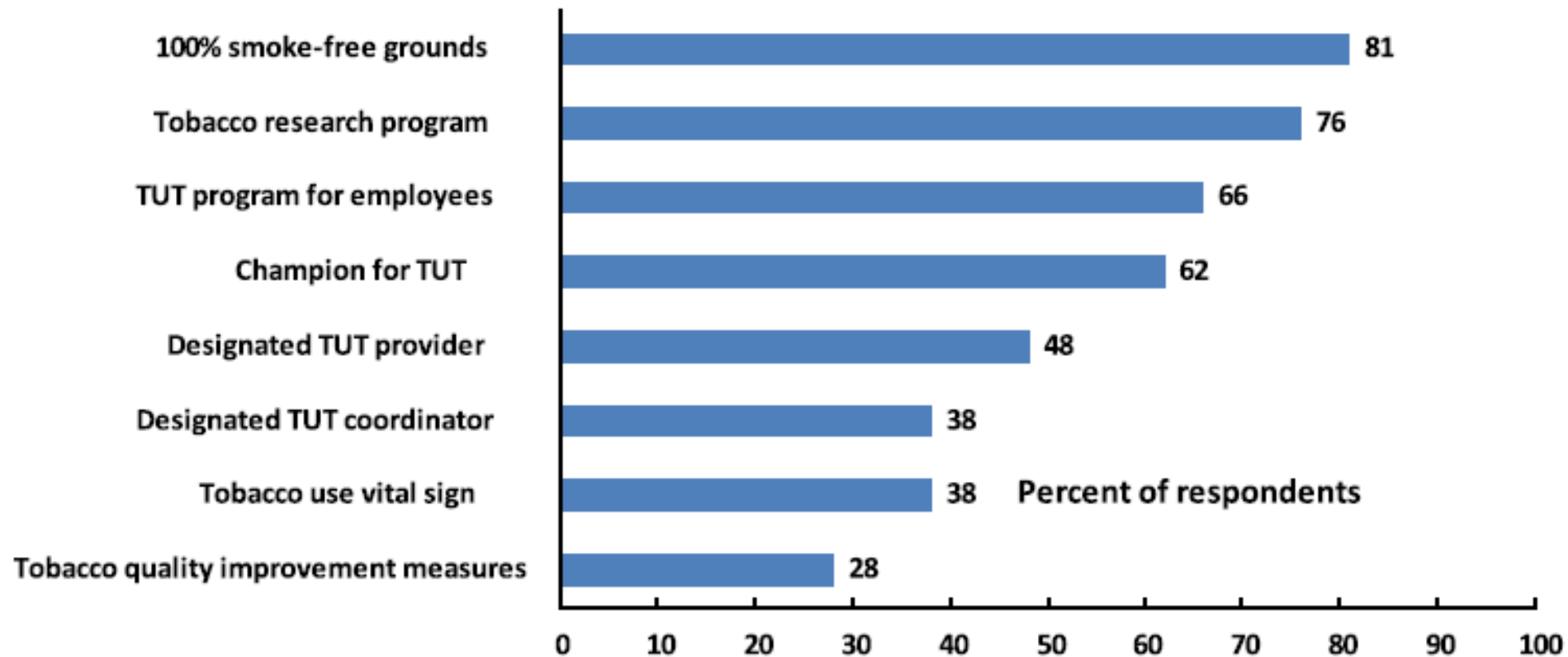
² *Cecil G. Sheps Center for Health Services Research, University of North Carolina, Chapel Hill, NC*

Corresponding Author: Adam O. Goldstein, M.D., M.P.H., Department of Family Medicine, UNC School of Medicine, University of North Carolina, CB 7595, Chapel Hill, NC 27595, USA. Telephone: 919-966-4090; Fax: 919-966-6125; E-mail: aog@med.unc.edu



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Tobacco Use Treatment (TUT) Activities at Comprehensive Cancer Centers (n = 58)



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Source: Goldstein, et al., 2012

Surveys of Oncologists' Beliefs About the Importance of Tobacco Treatment in Cancer Care

Perceptions	IASLC N=1507	ASCO N=1197
Tobacco affects clinical outcomes	91.7%	87.0%
Advising cessation should be standard of cancer care	90.2%	85.8%

% Agree/Strongly Agree

Source: Warren et al, 2013, *J of Thoracic Oncology*; Warren et al 2013, *J Oncol Practice*



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Tobacco treatment practice patterns at initial oncology visit*

Practice Pattern	IASLC	ASCO
Ask about tobacco use	90.2%	89.5%
Assess readiness to quit	78.9%	80.2%
Advise to quit	80.6%	82.4%
Discuss medications	40.2%	44.3%
Actively treat or refer	38.8%	38.6%

% Always/Most of the Time

*Lower rates reported during follow-up visits

Attitudes of oncology healthcare practitioners towards smoking cessation: A systematic review of the facilitators, barriers and recommendations for delivery of advice and support to cancer patients

K. Conlon ^a, L. Pattinson ^{a, *}, D. Hutton ^b

Table 3

Most commonly extracted statements from the literature, the number of studies the statements were found in, whether the finding was considered a barrier, facilitator or recommendation regarding smoking cessation delivery and the category assigned to the statement for thematic analysis.

Finding extracted	Number of studies	Finding type	Category
Lack of adequate training	7	Barrier	Knowledge
Perception intervention would be harmful to patient through increased stress and guilt	7	Barrier	Mental health
Lack of confidence in cessation	5	Barrier	Views
Lack of knowledge	5	Barrier	Knowledge
Do not see smoking cessation discussions as their role	5	Barrier	Views
Willingness to be trained	5	Facilitator	Views
Educational programs focused on teaching skills and knowledge related to cessation	5	Recommendation	Knowledge
Current smoker	4	Barrier	Demographic
Lack of skills	4	Barrier	Knowledge
Lack of perceived patient motivation	4	Barrier	Perceived patient views
Lack of time	4	Barrier	Procedures
Belief smoking cessation is worthwhile	4	Facilitator	Views
System-level changes to include routine incorporation of tobacco assessment and cessation into standard care	4	Recommendation	Procedures



Identifying Barriers to Treating Tobacco Use Among Cancer Patients

- **Patient Barriers**

- Stigma deters help-seeking
- Distress
- Low quitting self efficacy
- Nicotine addiction/withdrawal symptoms
- Psych history/substance use

- **Systems barriers**

- Lack of organizational priority
- Absence of standardized tobacco use assessment
- Lack of available resources
- Lack of referral options
- Lack of clarity regarding role and responsibilities (workflow)
- Coverage/business plan

- **Provider barriers**

- Competing priorities
- Lack of time
- Perceived patient resistance
- Discomfort/Avoidance: Don't want to worsen distress/upset the patient
- Lack of knowledge, training and confidence in how to help patients quit

Source: Warren et al, 2013; Warren et al, 2013; Sarna et al, 2000



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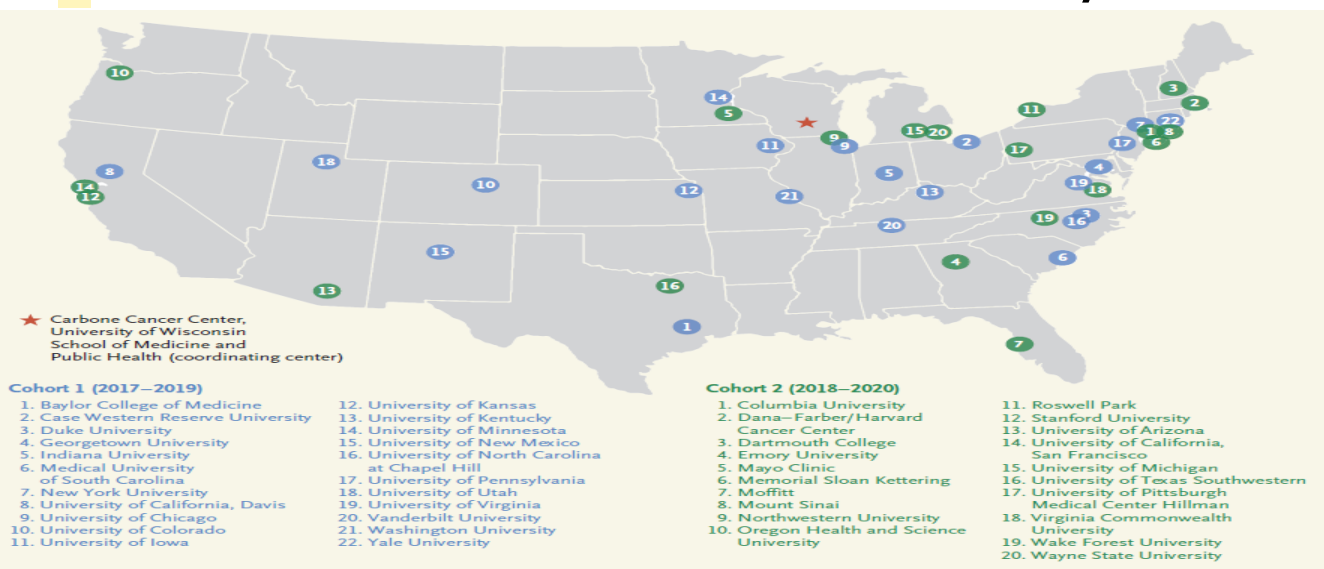
Bottom Line... Missed Opportunities

- Tobacco use assessment and treatment are not yet standard of care:
 - Only 60% of Comprehensive Cancer Centers offer some form of tobacco treatment
 - <50% of oncology providers routinely provide tobacco treatment
 - Patient, provider and systems-level barriers must be addressed



NCI's Cancer Centers Cessation (C3I) Initiative

Administrative Supplements to Implement Tobacco Treatment Delivery in Cancer Care



NCI-Designated Cancer Centers Selected as Part of the Cancer Center Cessation Initiative (C3I).



Perspective

Addressing a Core Gap in Cancer Care — The NCI Moonshot Program to Help Oncology Patients Stop Smoking

Robert T. Croyle, Ph.D., Glen D. Morgan, Ph.D., and Michael C. Fiore, M.D., M.P.H., M.B.A.



Article

Figures/Media

Metrics

February 7, 2019

N Engl J Med 2019; 380:512-515

JAMA
Network | **Open.**



Invited Commentary | Oncology

Effective Cessation Treatment for Patients With Cancer Who Smoke—The Fourth Pillar of Cancer Care

Michael C. Fiore, MD, MPH, MBA; Heather D'Angelo, MHS, PhD; Timothy Baker, PhD


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JAMA Network Open. 2019;2(9):e1912264. doi:10.1001/jamanetworkopen.2019.12264

September 27, 2019 1/3



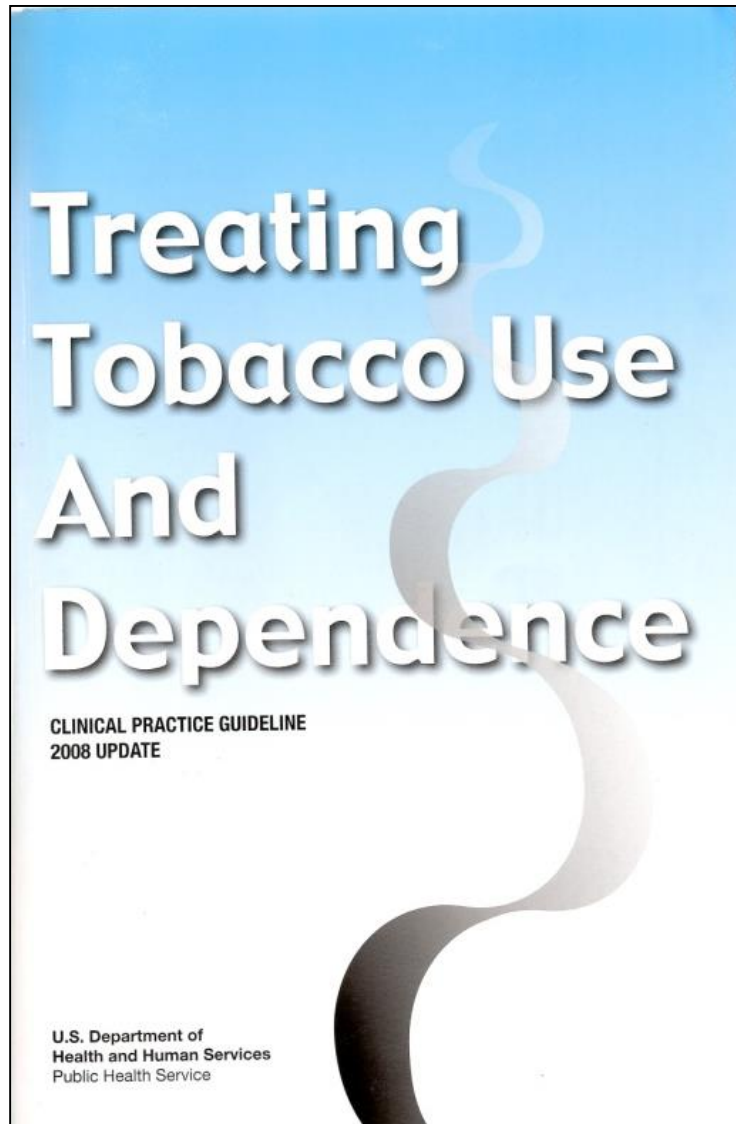
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What are best practices for tobacco use assessment and treatment in cancer care?



Public Health Service Clinical Guidelines: Treating Tobacco Use and Dependence

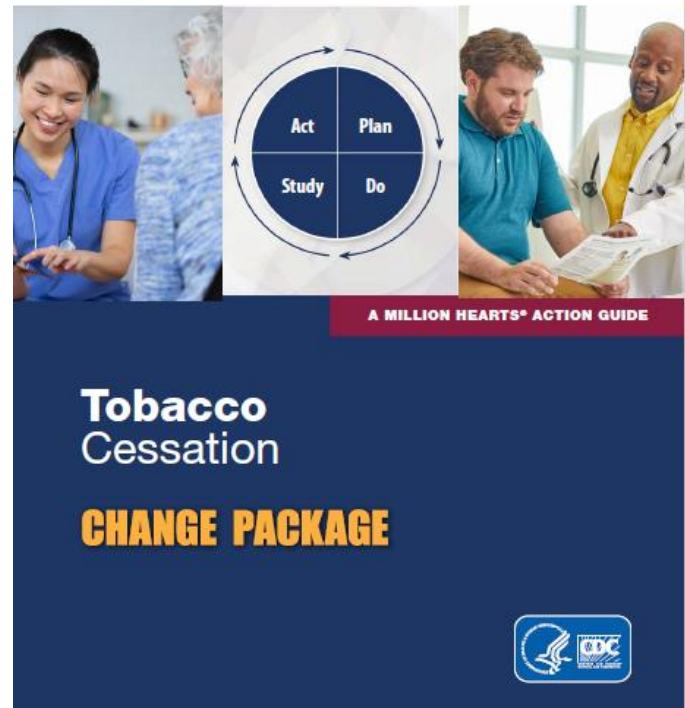


- 2008 - Updated Guideline published
- Literature from 1975 - 2007
- Approx. 8,700 total articles



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2019 Year of Cessation



<https://blogs.cdc.gov/cancer/2019/06/25/cancer-survivors-month-free-help-to-quit-smoking/>



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NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®)

Smoking Cessation

Version 1.2018 — June 18, 2018

NCCN.org

Continue



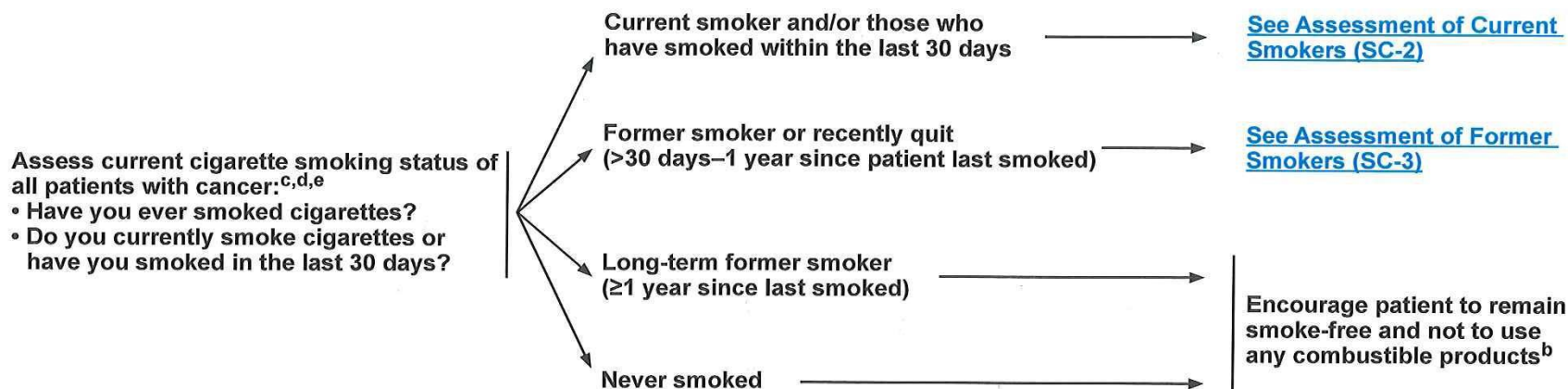
NCCN Guidelines Version 1.2018

Smoking Cessation

EVALUATION AND ASSESSMENT OF PATIENT SMOKING^b

INITIAL EVALUATION^c

STATUS



^bRecommendations in this guideline apply to cessation of cigarette smoking. Patients with cancer should be encouraged to discontinue the use of all combustible products (eg, cigars, hookah) and smokeless tobacco products. For information about e-cigarettes, [see Principles of Alternative Approaches to Smoking Cessation \(SC-A\)](#).

^cInitial evaluation and assessment of patient smoking may be completed by any member of the health care team, including physicians, nurses, medical assistants, health educators, or other dedicated staff.

^dSmoking status should be documented in the patient health record and assessment should be repeated at every visit (less often for patients with remote smoking histories).

^eSmoking cessation should be offered to all smokers with cancer regardless of cancer prognosis. [See Smoking-Associated Risks for Patients With Cancer \(SC-B\)](#).

Note: All recommendations are category 2A unless otherwise indicated.

Clinical Trials: NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.

NCCN CLINICAL RECOMMENDATIONS

- Combining pharmacologic therapy and behavior therapy is the most effective approach and leads to the best results for smoking cessation.
 - The two most effective pharmacotherapy agents are combination nicotine replacement therapy (NRT) and varenicline.
 - High-intensity behavior therapy with multiple counseling sessions is most effective, but at least a minimum of brief counseling is highly recommended. Quitlines may be used as an adjunct, especially in lower-resource settings.
- Smoking status should be documented in the EMR. EMR should be updated at regular intervals to indicate changes in smoking status, quit attempts made, and interventions utilized.
- Smoking relapse and brief slips are common and can be managed. Providers should discuss this and provide guidance and support to encourage continued smoking cessation attempts. Smoking slips are not necessarily an indication to try an alternative method. It may take more than one quit attempt with the same therapy to achieve long-term cessation.
- Smoking cessation should be offered as an integral part of oncology treatment and continued throughout the entire oncology care continuum, including surgery and end-of-life care. An emphasis should be put on patient preferences and values when considering the best approach to fostering smoking cessation during end-of-life care.



Evaluating Smoking Cessation Interventions and Cessation Rates in Cancer Patients: A Systematic Review and Meta-Analysis (Nayan et al, 2013)

10 RCT and 3 Cohort Studies

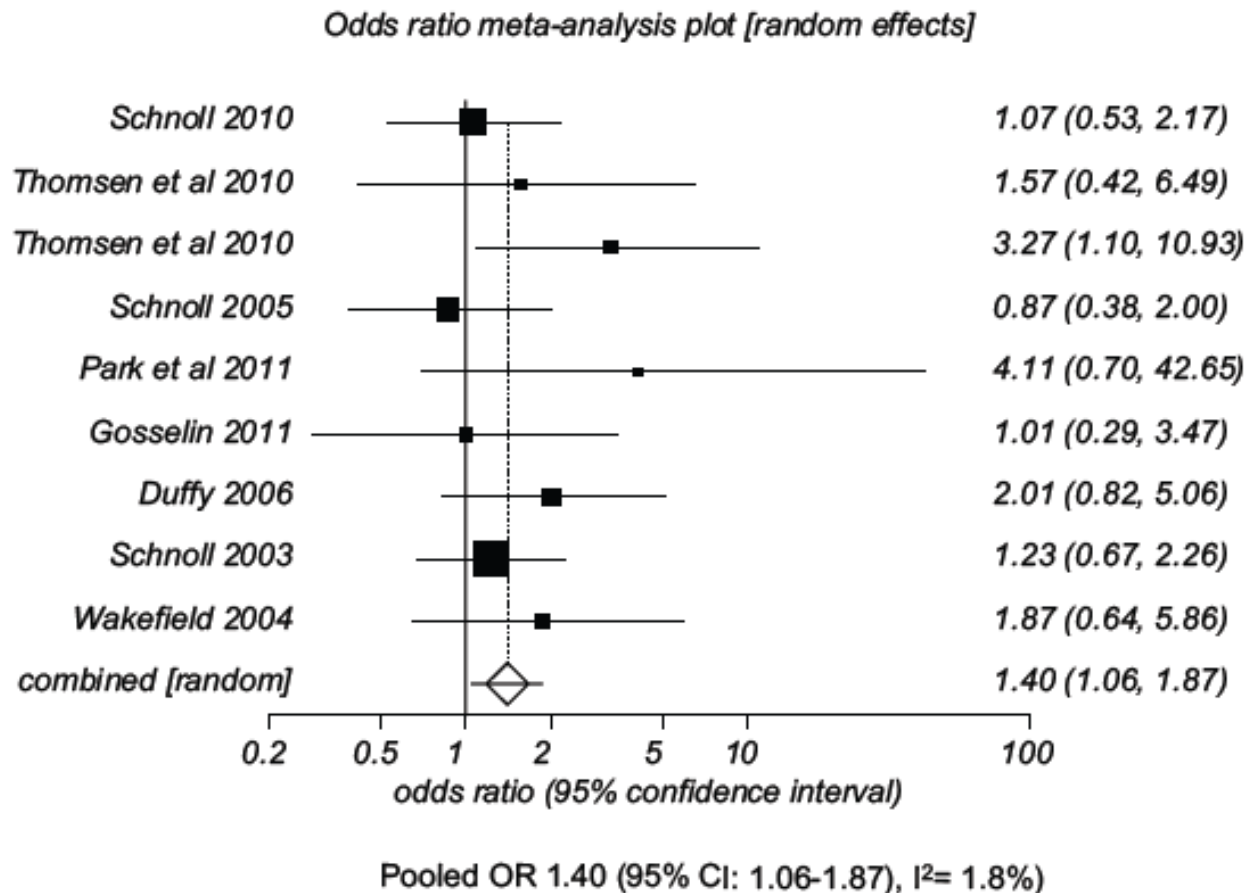
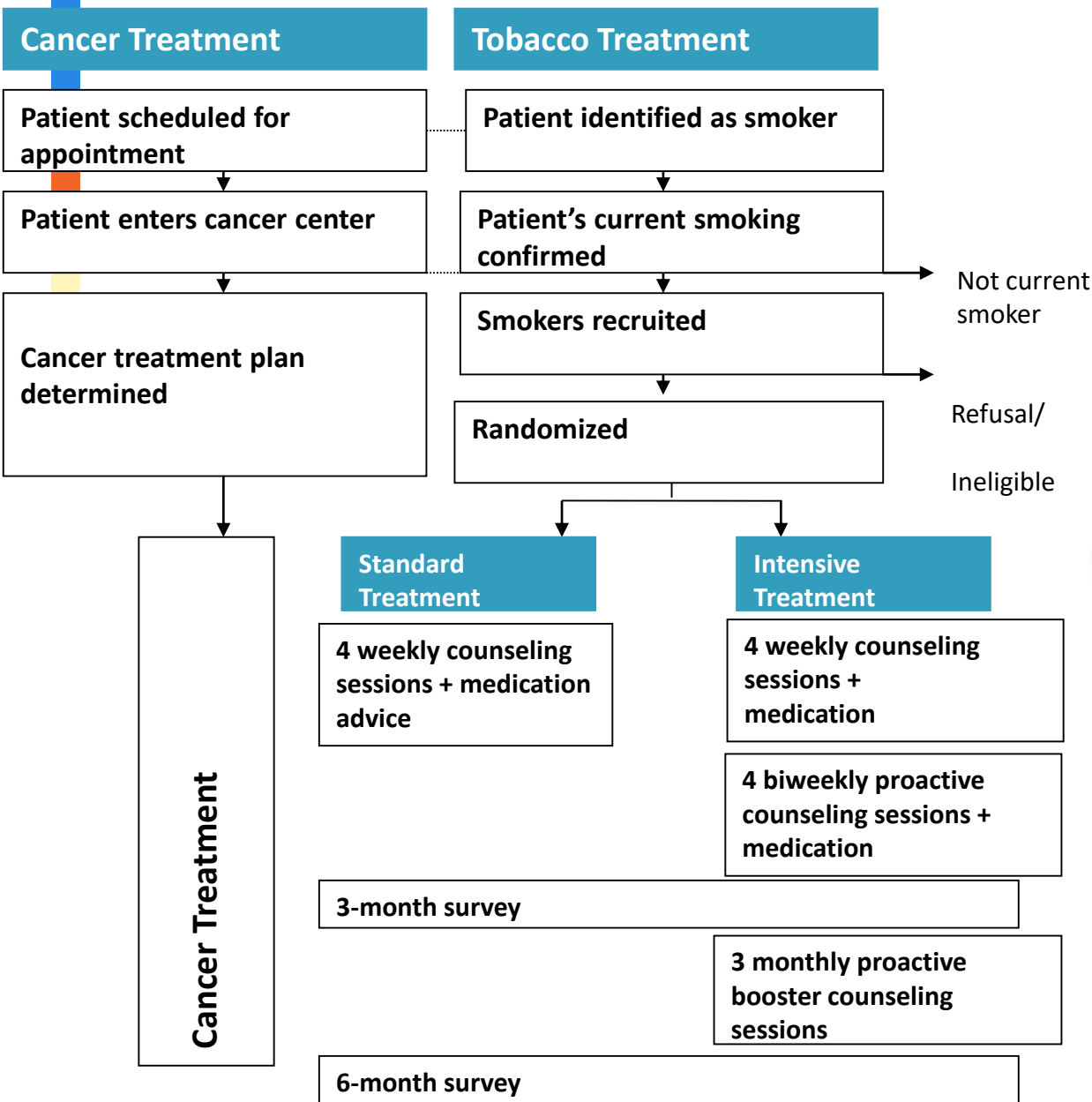


Figure 5. Meta-analysis plot looking at odds ratios in the group with combination intervention (nonpharmacological + pharmacological intervention).^{5,16,21,67,69,72,74}



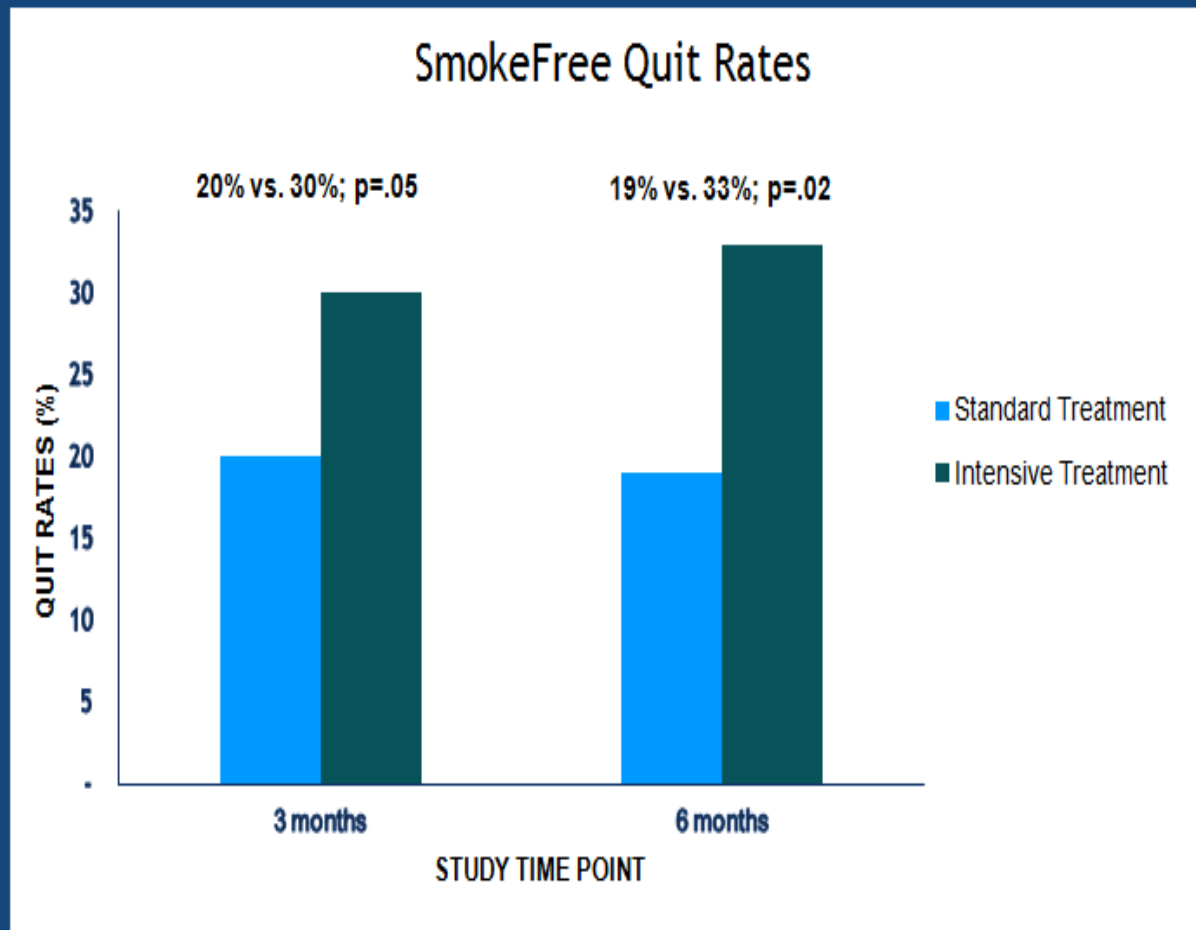
Elyse Park and Jamie Ostroff



Primary Outcome: Biochemically-Confirmed Quit Rates at 6 months

Among those abstinent at 3-months:

30% relapsed between 3 and 6 months

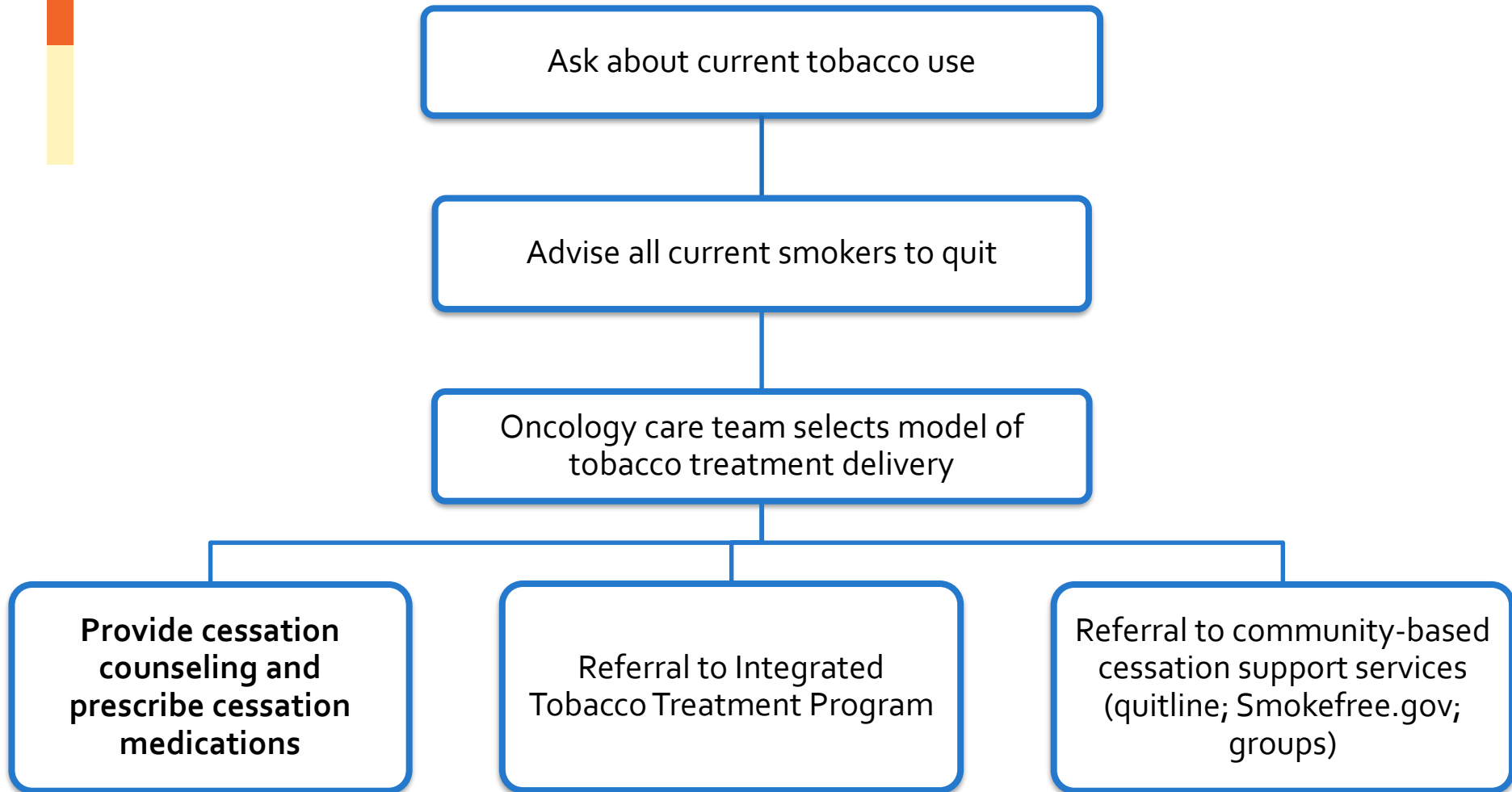


Among those abstinent at 6-months:

65% quit at 3 months (early quitters)

35% quit at 6 months (late quitters)

Models of Tobacco Treatment in Cancer Care



Examples of Tobacco Treatment Models at Cancer Centers

Program Characteristics	Massachusetts General Hospital	Memorial Sloan Kettering Cancer Center	MD Anderson	Moffitt
Identification of tobacco users	Electronic assessment at admission, computerized order entry, electronic referral	Inpatient and ambulatory nursing assessment, automated referral	Referral by health care provider, self referral, electronic referral at follow-up appointments	Comprehensive admission assessment interview (EMR)
Eligibility	Current smokers, recent quitters (past 12 mo)	Current smokers, recent quitters (past 30 d)	Current smokers, recent quitters (past 12 mo)	Current smokers, recent quitters (past 90 d)
Treatment Intensity	Level 4	Level 4	Level 4	Level 3
Treatment Modality	Individual counseling at bedside, referral to quit line or internal automated phone reminder system with call-back option, self-help guide	Individual face-to-face counseling, telephone counseling with in house Tobacco Treatment Specialists, self-help guide	Individual face-to-face counseling, telephone and Webcam counseling	Cessation classes
Funding source(s)	Hospital operating budget/clinical revenue	Hospital operating budget/clinical revenue	State tobacco settlement funds	Hospital operating budget

NOTE: Level 1: hospital contact for < 15 minutes and no discharge support; level 2: hospital contact for > 15 minutes and no discharge support; level 3: any hospital contact and post-discharge lasting 1 month or less; level 4: any hospital contact and post-discharge support lasting more than 1 month

Source: Morgan, et al., 2011



Now Available!

The Cancer Patient Tobacco Use Questionnaire (C-TUQ)

C-TUQ asks cancer patients and survivors about their tobacco use. **The questionnaire will help yield important research variables and allow harmonization across studies.** The questions can be used at study entry and during follow-up. This questionnaire was designed and validated by an expert task force.

- C-TUQ Core: a short form with just 4 smoking status and history items, for broad use in cancer research
- C-TUQ Extension: a set of items from which to select for comprehensive assessment. Includes newly designed and validated items for smoking



history and status relative to cancer diagnosis and treatment. Also addresses use of other tobacco products (such as e-cigarettes), secondhand smoke exposure, and cessation.

ASK: MSK Screener for Current Tobacco Use

- In the past 30 days, have you smoked cigarettes or used any other forms of tobacco (cigars, pipe, smokeless tobacco, electronic cigarettes)?
 - Every day*
 - Some days*
 - Not at all

**Tobacco use screening is routinely assessed on all Ambulatory and Inpatient Adult Health Screening Forms and all current smokers are referred to the MSK Tobacco Treatment Program*



ADVISE

Thinking of
quitting?



We can help.

Memorial Sloan-Kettering Cancer Center
Tobacco Cessation Program
(212) 610-0507

*There are many clinically important risks of persistent smoking and **benefits of quitting** for cancer patients. Given that quitting smoking is known to improve cancer-related outcomes, I strongly encourage you to quit smoking. I know that quitting smoking is never easy so I want to refer you to XXXX for cessation support and guidance.*

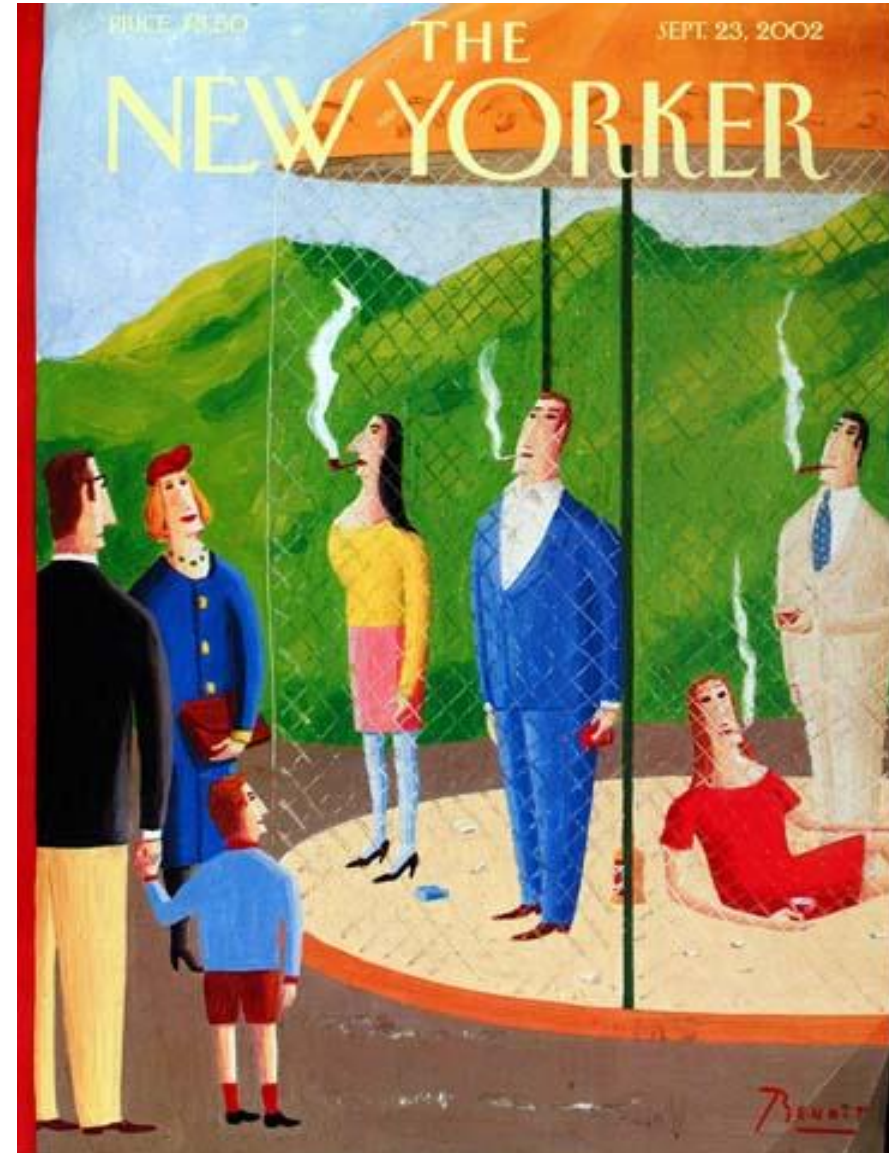
- Provide patient educational materials/brochure

NOTE: Discussing tobacco use is a sensitive topic for most cancer patients. Be empathic/non-judgmental, provide individualized reasons for quitting and encourage willingness to help by discussing safe and effective tobacco treatments and referring patients to colleagues with expertise in treating tobacco dependence in cancer care



Be Aware of the Impact of Stigma

- Smoking is a sensitive topic for most cancer patients/survivors.
- Regret, shame, self-blame, guilt
- Source of conflict with smoking discordant loved ones
- Misreporting, avoidance of help-seeking

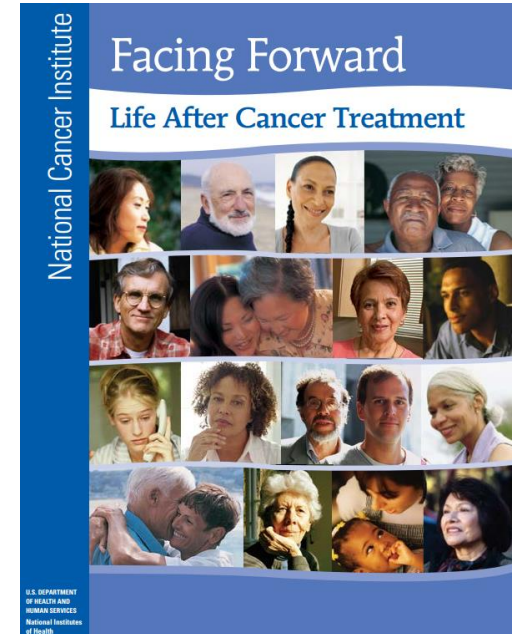


REFER/PRESCRIBE

- Refer smokers to Tobacco Treatment Specialist (TTS) for follow-up cessation counseling
- Use of cessation medication reduces acute nicotine withdrawal (*e.g., restlessness, irritability, cravings, difficulty concentrating*).
- Use of cessation medication also increases the likelihood of cessation.



Community-based Cessation Resources and Referrals



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MSKCC Tobacco Treatment Program

Stepped-Care Model

STEP 3: MAXIMUM INTENSITY

- Clinic treatment (individual counseling)
- Address psychiatric, substance abuse comorbidity
- Combination pharmacotherapy
- Long-term follow-up and maintenance

STEP 2: MODERATE INTENSITY

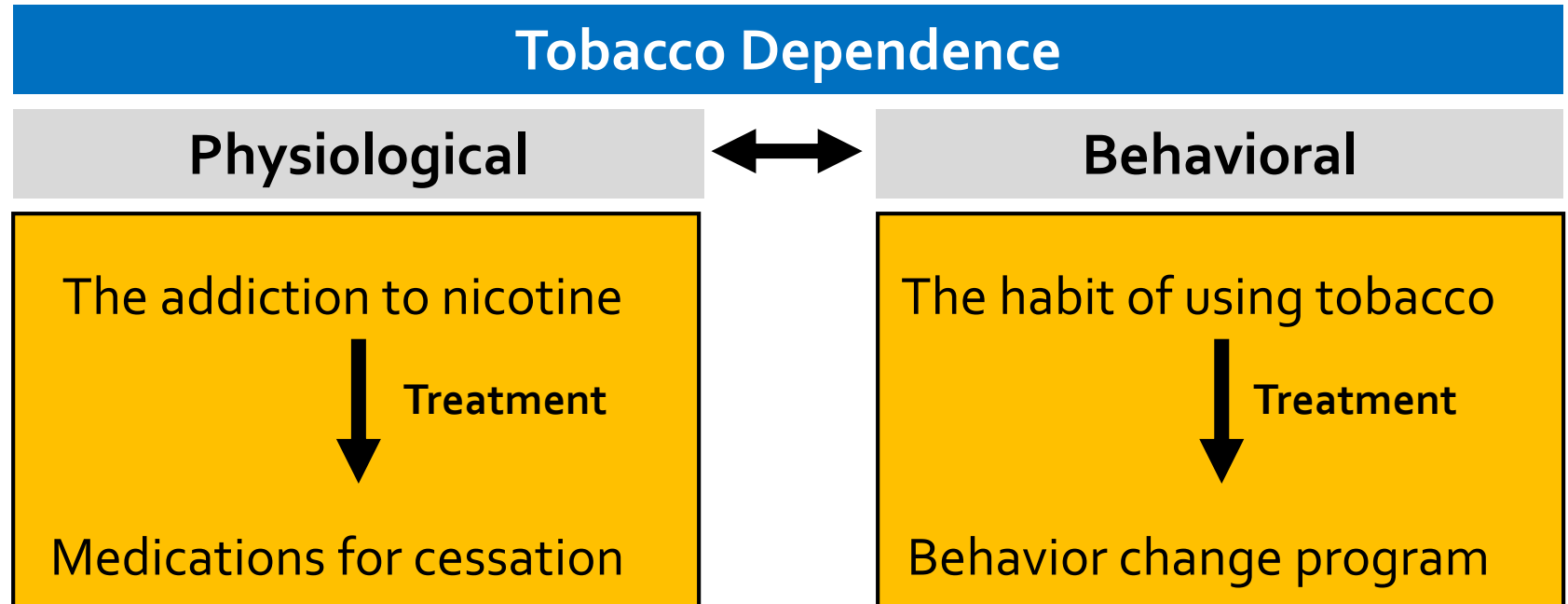
- First-line pharmacotherapy
- Brief motivational and cessation counseling
- Arrange referral and/or follow-up

STEP 1: MINIMUM INTENSITY

- Identify all current smokers
- Personalized advice
- Self-help materials



Tobacco Dependence: A 2-Part Problem



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





Behavioral Counseling *The Cancer Setting*

- Cancer diagnosis: A teachable moment
- Increased awareness of harms associated with unhealthy behaviors and receptivity to health behavior change
- Psychoeducation about nicotine addiction and “chemical coping”
- Includes high-intensity (multiple sessions), brief counseling and quitlines (especially in lower-resource settings).





Behavioral Counseling *The Cancer Setting*

Psychosocial factors:

- External pressure → reactivity and defensiveness, impeding motivation to quit smoking
- Stigma and shame → self-blame, defensiveness
- Fatalism: “the damage has been done” “too old”
- Psychological distress can reduce quitting self-confidence, motivation
- Unaddressed pre-existing disorders, such as alcohol/substance abuse, depression, anxiety
- Family smoking in the home and social network



National Comprehensive Cancer Network (NCCN) Guidelines

Pharmacotherapy Options

Preferred Primary Therapy Options

- **COMBINATION NRT:** Nic Patch + short acting NRT (lozenge/gum/inhaler/nasal spray)
or
- **VARENICLINE**
- For patients who continue to smoke or experience relapse: Evaluate use of current therapy and consider continuing or resuming initial pharmacotherapy, or switch to the other primary therapy option before trying the subsequent therapy options.

Subsequent Therapy Options

- **COMBINATION NRT + BUPROPION (sustained release)**
- **BUPROPION (sustained release)**



FDA-Approved Cessation Pharmacotherapy Options

- Nicotine Patch OTC
- Nicotine Gum OTC
- Nicotine Lozenge OTC
- Nicotrol Inhaler Prescription
- Nicotine Nasal Spray Prescription
- Zyban/Wellbutrin (*Bupropion*) Prescription
- Chantix (*Varenicline*) Prescription



Special Medication Considerations

- Consider potential contraindications and treatment-related side effects
- Standard dosage recommendations are dependent upon smoking rate/patterns and patient's prior medication use experience
- Address patient's concerns and reluctance to use cessation medications via shared decision-making model



TAKE AWAYS

- Persistent smoking is associated with increased risk of recurrence, second primary cancers, treatment complications and poor treatment response, drug interactions, other tobacco-related medical conditions, diminished quality of life and reduced survival.
- Smoking is prevalent with at least 16-27% of adult cancer survivors estimated to be current cigarette smokers.
- Evidence-based clinical practice guidelines (NCCN) exist for safely and effectively treating tobacco dependence among cancer patients/survivors.
- Cancer patients' use of evidence-based cessation treatment is low and that oncology providers miss many “teachable moment” opportunities to advise cessation and treat tobacco dependence. We CAN do better!



Tobacco Treatment Resources for Cancer Patients and Providers

- ASCO Tobacco Cessation Guide for Oncology Providers- Toolkit intended to help oncology providers integrate tobacco cessation strategies into their patient care.
http://www.asco.org/sites/default/files/tobacco_cessation_guide.pdf
- NCCN Clinical Practice Guidelines in Oncology for Smoking Cessation
https://www.nccn.org/professionals/physician_gls/pdf/smoking.pdf
- AACR-ASCO Policy on Electronic Nicotine Delivery Systems (ENDs)
http://www.asco.org/sites/www.asco.org/files/e-cig_january_2015.pdf
- ASCO University Bookstore-Cancer prevention curriculum with information on smoking cessation
<http://store2.asco.org/Asco-Cancer-Prevention-Curriculum-CD/dp/Boo72H6ZG2>
- Surgeon General's Report <http://www.surgeongeneral.gov/library/tobaccosmoke/report/index.html>
- Chapter 5 of the report is focused on cancer and tobacco use
<http://www.surgeongeneral.gov/library/tobaccosmoke/report/chapter5.pdf>
- ASCO Tobacco Control Policy
<http://jco.ascopubs.org/content/early/2013/07/29/JCO.2013.48.8932.full.pdf>
- ASCO's tobacco cessation policy statement, 2012 update
- American Association for Cancer Research: Assessing Tobacco Use by Cancer Patients and Facilitating Cessation
http://www.aacr.org/AdvocacyPolicy/GovernmentAffairs/Documents/AACRStatement_TobaccoUseCancerPatients_2013_CCR_f3f578.pdf
- Oncology Nursing Society <https://www.ons.org/advocacy-policy/positions/policy/tobacco>
- Nursing Leadership in Global and Domestic Tobacco Control statement, 2008 update
- SmokeFree.gov Resources for Healthcare Professionals <http://smokefree.gov/health-care-professionals>
- National Certificate in Tobacco Treatment Practice <https://www.naadac.org/NCTTP>





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Questions?



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