

New NCCN Guidelines: Smoking Cessation for Patients With Cancer

Presented by Peter G. Shields, MD

Abstract

Even after a cancer diagnosis, for any stage and prognosis, patients with cancer can reap health benefits from smoking cessation. To address the clinical problems associated with smoking in cancer patients, the NCCN created a new set of NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines) for 2015. At NCCN 20th Annual Conference, Dr. Peter Shields presented these inaugural guidelines, focusing primarily on the adverse outcomes associated with smoking in patients with cancer, the common barriers to smoking cessation in this patient population, simple yet effective assessment approaches, and treatment recommendations that center on the combination of pharmacotherapy and behavioral therapy. (*J Natl Compr Canc Netw* 2015;13:643–645)

Only 50% of oncologists advise their patients to quit smoking, and most of them do not provide steps on how to do it, stated Peter G. Shields, MD, Professor in the Division of Medical Oncology, Department of Medicine in the College of Medicine and in the Division of Epidemiology in the College of Public Health at The Ohio State University; Deputy Director of The Ohio State University Comprehensive Cancer Center – James Cancer Hospital and Solove Research Institute; and Chair of the NCCN Guidelines Panel on Smoking Cessation.

“Treating patients with cancer is not simple, and smoking issues easily take second or third or fourth priority, so

we wanted to come up with guidelines that would be clear, relevant, and something that could literally be done in the clinic in just a few minutes,” Dr. Shields said. The goals of the new NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines) for Smoking Cessation are to establish standards of care, facilitate implementation with clear guidelines, allow for quality-control monitoring, fill a gap among current guidelines, and ultimately improve the health and outcomes of patients with cancer.

Rationale Behind Creation of Smoking Guidelines

Smoking is a real problem in patients with cancer, and it can and should be addressed effectively, Dr. Shields noted. The American Association for Cancer Research Taskforce on Tobacco noted that almost no institutions have reported systematic and consistent mechanisms for fostering smoking cessation, explained Dr. Shields, and we need to do a better job in the clinic to help patients with cancer kick the habit.

According to the 2014 Surgeon General Report on Smoking and Health,¹ sufficient evidence exists of a causal relationship between adverse health outcomes and smoking, including an increase in all-cause mortality, cancer-specific mortality, and risk for second primary cancers. In addition, it noted, smoking cessation improves prognosis and reduces toxicities for many of our treatments.

Dr. Shields briefly discussed some of the long-standing and recent data behind the negative effects of smoking on patients with cancer. In 1993, Browman et al² evaluated the influence of cigarette smoking on the efficacy of radiation therapy in head and neck cancer. “There were clear differences in survival between long-time quitters of smoking and those who continued to smoke,” revealed Dr. Shields.

In 2009, Zevallos et al³ focused on the effects of a prospective smoking cessation program on complications of

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radiotherapy in patients with laryngopharyngeal cancer. The investigators found that smokers experienced more hospitalizations during treatment, more pharyngeal strictures requiring dilatation, and more osteoradionecrosis needing major resection than did nonsmokers.

And more recently, in 2014, O'Malley et al⁴ studied the effects of cigarette smoking on the metabolism and effectiveness of systemic therapies for lung cancer. Due to the narrow therapeutic index of systemic therapies for lung cancer, the authors concluded that smoking-induced changes in drug plasma concentrations could reduce treatment efficacy and negatively impact outcomes.

Barriers to Smoking Cessation

Several common barriers to smoking cessation efforts in patients with cancer have been cited by oncologists, including lack of time and priority, interventions that are too seemingly complex, lack of adequate training and expertise, and the mistaken belief that patients with cancer may not benefit enough from brief physician advice, detailed Dr. Shields.

Patients with cancer who smoke indeed represent a unique population of smokers, and there are challenges to speedy smoking cessation. This patient population may have high psychological stress and depression, complicating the clinical picture even further.

However, according to Dr. Shields, "We should take advantage of this teachable moment," and the new NCCN Guidelines for Smoking Cessation offer clear steps for patient assessment, recommend evidence-based pharmacotherapy (Figure 1) and behavioral therapy, stress the importance of close follow-up and adequate documentation in the medical record, and present a variety of resources for patients and providers (quit lines, online support, mobile apps, and training modules; Figure 2).

Highlights of the New Guidelines

In the new NCCN Guidelines, initial assessment of patient smoking centers around 2 questions: Have you ever smoked cigarettes? Do you currently smoke cigarettes or have smoked in the past 30 days? These brief questions could be asked by any member of the medical team, including a medical assistant or nurse, said Dr. Shields. The intent of these questions was to make it easy for clinicians to bring up the subject in a few short minutes, he added. With a couple more questions, the health care provider can quickly gauge the challenges for quitting and the risk of relapse.

Then the algorithm provides guidance for evaluat-

- First-Line
 - Combination NRT
 - Nicotine patch + short-acting NRT (lozenge/gum/inhaler/nasal spray)
 - Varenicline
- Second-Line
 - Varenicline + NRT
 - Bupropion + NRT
- Third-Line
 - Varenicline + bupropion ± NRT
 - Nortriptyline (tricyclic antidepressant)
 - Clonidine (antihypertensive, alpha-2 adrenergic receptor agonist)

Figure 1 Pharmacotherapy options for smoking cessation. Abbreviation: NRT, nicotine-replacement therapy.

ing 1) current smokers and 2) former smokers or recent quitters (more than 30 days). The evaluation of former smokers focuses on identifying risk factors for smoking relapse, which include the frequency and intensity of cravings, elevated stress and/or depression, living/working with smokers, current use of a smoking cessation treatment, and drug use/abuse.

For current smokers, the first step is to determine their readiness to quit smoking. For instance, the patient should be asked whether he or she is willing to make a quit attempt in the next 30 days.

For those who are ready to quit, providers should assess the challenges and barriers for quitting, and document these in the medical record, including the patient's nicotine dependency by asking the following questions: How many cigarettes do you smoke in a day? How soon do you smoke after you wake up in the morning? Are you living with smokers? The history of quit attempts should also be documented. "The more nicotine dependent they are, the harder it will be for them to quit, and the more aggressive you will have to be with them," explained Dr. Shields. A personalized quit plan should be established, a quit date set, treatment options presented, and risk of relapse discussed.

For those who are not ready to quit, Dr. Shields encouraged oncologists to engage in motivational talk about smoking cessation, reviewing the health risks of smoking and the benefits of quitting and providing patient education. In addition, a patient's readiness to quit should be reassessed at each visit.

For patients who are still smoking and say they want to quit, or for persons who have recently quit smoking, Dr. Shields noted that pharmacotherapy (such as short-acting nicotine replacement therapy [NRT]) and behavior therapy can be considered. This also would be the time to review the risks associated with smoking and benefits of abstinence and to offer patient support resources. Dr. Shields also stressed the importance of fol-

Smoking Cessation

 National Comprehensive Cancer Network®		NCCN Guidelines Version 1.2015 Smoking Cessation	NCCN Guidelines Index Smoking Cessation TOC Discussion
SMOKING CESSATION RESOURCES FOR HEALTHCARE PROVIDERS AND PATIENTS (1 of 2)			
Outlines/Online Support/Mobile Apps			
American Lung Association	<ul style="list-style-type: none"> • 1-800-LUNGUSA (1-800-586-4872) • Live Help (Online Chat): http://www.lung.org/about-us/lung-help-line.html 		
National Network of Tobacco Cessation Outlines	1-800-QUIT-NOW (1-800-784-8689)		
National Cancer Institute (NCI)	<ul style="list-style-type: none"> • 1-877-448-7848 • Live Help (Online Chat): https://livehelp.cancer.gov/app/chat/chat_launch 		
Smokefree.gov	<ul style="list-style-type: none"> • SmokefreeTXT (Text messaging support): http://smokefree.gov/smokefreetxt • Smokefree Apps (for smartphones): http://smokefree.gov/apps-quitstart 		
TRICARE (For military service members and their families)	<ul style="list-style-type: none"> • Quitlines: North: 1-866-439-8766; South: 1-877-414-9949; West: 1-888-713-4597 • http://www.tricare.mil/Health/Wellness/Tobacco.aspx 		
Quit Tobacco: UCANQUITZ.org	<ul style="list-style-type: none"> • Live chat with quit coach: http://www.ucanquit2.org • SmokefreeMIL text message support: http://www.ucanquit2.org/en/HowToQuit/SmokefreeMIL.aspx 		
General Information Online			
American Heart Association	http://www.heart.org/HEARTORG/GettingHealthy/QuitSmoking_UCM_001985_SubHomePage.jsp		
American Lung Association	http://www.lung.org/stop-smoking		
Centers for Disease Control and Prevention (CDC)	http://www.cdc.gov/tobacco/quit_smoking/how_to_quit/resources/index.htm		
NCI	http://www.cancer.gov/cancer-topics/tobacco/smoking		
SmokeFree.gov	http://smokefree.gov		
Smoking Cessation Programs			
American Lung Association	http://www.lung.org/stop-smoking/how-to-quit/free-from-smoking		
Ex: A New Way To Think About Quitting Smoking	http://www.becomeone.org		
Guides to Quitting			
American Cancer Society (ACS)	http://www.cancer.org/healthy/stay-away-from-tobacco/guide-to-quit-in-smoking/index		
NCI: "Clearing the Air: Quit Smoking Today"	http://smokefree.gov/sites/default/files/pdf/clearing-the-air-accessible.pdf		

Figure 2 Smoking cessation resources.

low-up and reevaluation, either in person or by phone.

Dr. Shields briefly mentioned the growing popularity of electronic cigarettes (e-cigarettes). Currently, the new NCCN Guidelines do not recommend e-cigarettes for smoking cessation because there is insufficient evidence to support their use. “Wall Street and scientists are predicting that these [e-cigarettes] will be the tobacco endgame, replacing cigarettes over the next 10 to 15 years,” announced Dr. Shields. Although he noted that their use is less risky than smoking traditional cigarettes, “they are not necessarily safe by themselves,” he said, and studies regarding their safety and efficacy are sorely needed. For patients who claim that they have tried everything and nothing has worked, it should be remembered that therapies proven to be effective (eg, combination NRT) may need to be tried several times before a smoker can achieve long-term abstinence.

Therapeutic Options

According to the new NCCN Guidelines, the recommended first-line therapy is combination NRT (nicotine patch plus nicotine lozenge, gum, inhaler, or nasal spray) or varenicline, which needs to be combined with behavioral therapy (individual or group). In second- or third-line settings, combination NRT can be combined with varenicline, bupropion, or other pharmacotherapies. Dr. Shields stressed that smoking slips and relapses are common and should be expected and worked through. These may not warrant a therapeutic change. Follow-up is critical, he added, within 2 weeks by phone

or in person (even e-mail or text). These then reassessment at 12 weeks is suggested.

Dr. Shields emphasized that pharmacotherapy without behavioral therapy is less effective than combination treatment. Actually, pharmacotherapy without any counseling, no matter how brief, is not more effective than no pharmacotherapy. A few minutes of counseling about the benefits and prevention of relapse makes a difference. A recent study by Kotz et al⁵ looked at the effectiveness of smoking cessation treatments in more than 10,000 smokers who made at least one quit attempt in the prior 12 months. The investigators found that patients who received pharmacotherapy accompanied by behavioral therapy had a more than threefold greater chance of being able to quit compared with patients receiving medication only. Furthermore, for patients who had just NRT over the counter, with no therapy at all, the results were similar to doing nothing at all.

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