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Special Report

Treating Tobacco Use in Patients with Incurable Malignancies: Should We Even Start the Conversation?

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Abstract

Background: Clinical practice guidelines recommend that all medical providers address tobacco use with patients, as the long-term health benefits of becoming tobacco free are well documented. What happens, though, when a patient has an incurable malignancy and, therefore, will not reap the long-term benefits?

Clinical Consideration: Our case study encourages providers to consider the relevance of tobacco use treatment for those with incurable diseases.

Discussion: Although long-term benefits will not provide realistic motivation, other equally important rewards (e.g., decreased shortness of breath), a sense of accomplishment shared by patients and family, and the ability to exert control over a behavior can be equally motivating for some patients.

Keywords: cancer; nicotine; oncology; palliative care; smoking; terminal illness; tobacco cessation; tobacco treatment; tobacco use

Introduction

Patients who receive advice and assistance from their healthcare providers to become tobacco free achieve abstinence rates significantly higher than those who do not receive such counseling.[1–3] Since patients do not typically start the conversation about their tobacco use, clinical guidelines recommend that all providers initiate discussions about tobacco use with patients.[1,2] Previous research examining posts on an online cancer forum indicates that both cancer survivors and their providers avoid initiating discussions about smoking cessation,[4] even though patients report higher satisfaction with providers who address tobacco use and value routine support and information from medical providers regarding treatment options.[5,6]

Given the high correlation between tobacco use and cancer, oncologists will have a significant number of patients who use tobacco. Tobacco use (both smoked and smokeless) causes at least 12 types of cancer, with cigarette smoking alone responsible for 30% of cancer deaths in the United States.[7] Receiving a cancer diagnosis can provide a teachable moment for addressing tobacco use.[8] Yet, oncology specialists often have neither the time nor the training to address fully the behavioral and pharmacological components of evidence-based tobacco treatment. In addition, there may be reluctance to ask patients to make changes that providers feel can intensify the stress and anxiety of cancer treatment. Moreover, some providers worry they will increase the patient's shame or guilt, especially in the case of tobacco-related cancers, by discussing the topic.[9] If the cancer diagnosis itself does not motivate quitting, providers may believe there is little they can do or say that will help patients to quit.[10]

Interviews with patients receiving cancer treatment indicate that many do appreciate their oncologists offering support in becoming tobacco free.[11] Patients who receive a cancer diagnosis are usually interested in cessation interventions and, therefore, this ''teachable moment'' can help them achieve this goal.[12–14] Since research has shown that patients typically are ready to quit within 30 days of receiving their diagnosis and achieve higher quit rates within the first three months after a diagnosis, guidelines suggest offering cessation interventions close to the time of diagnosis.[13–15] Stopping all tobacco use has also been associated with improvements in the therapeutic ratio of anticancer therapy (i.e., increased efficacy and reduced treatment side effects).[8,16,17] Thus, oncologists are in a unique position to promote tobacco cessation, engage patients in intimate discussions soon after cancer diagnoses, and craft a broad positive message to encourage becoming tobacco free. The American Society for Clinical Oncology and other organizations have adopted policy statements and guidelines reflecting the evidence for offering treatment for tobacco use to patients with cancer.[18]

One unanswered question in the literature is how tobacco cessation guidelines may best apply to oncology patients with

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incurable malignancies. Medical professionals and patients may discount the importance of talking about becoming tobacco free when no cure is available or life expectancy is short. By not discussing the topic of tobacco cessation, the opportunity for a teachable moment that could have a positive impact on a patient's life might be missed. This clinical report highlights some of the barriers and potential benefits of addressing tobacco cessation in patients with an incurable cancer diagnosis.

Case

Mr. R, a 47-year-old Caucasian male diagnosed with an upper tract urothelial cancer, was referred by his oncologist to the on-site treatment program for tobacco use, Nicotine Dependence Program (NDP), at the North Carolina Cancer Hospital's outpatient clinic. He had smoked 1–2 packs of cigarettes per day (cpd) for 20 ßs. At his initial visit with the program's tobacco treatment specialist, he reported smoking ~17 cpd and expressed reluctance to quit. He felt the added stress of his diagnosis would make it too difficult and noted that some of his providers recommended that he not worry about quitting during this challenging time. Nonetheless, he verbalized several important reasons to quit smoking. (1) His cancer diagnosis—concerns that his smoking contributed to his current diagnosis and desire to prevent any future tobacco-related medical issues. (2) His children (both elementary school age)—wanting to be a good role model and ensuring that they knew he did everything possible for his health in the face of the cancer diagnosis. (3) His wife—who did not smoke and had wanted him to quit for many years. Mr. R recognized the challenge of attempting to quit during this stressful time given his cancer diagnosis; at the same time, he wanted to learn how to deal with stress in a different way and saw this as a good time to practice.

The tobacco treatment specialist worked with Mr. R to develop a plan that focused on behavioral support, pharmacotherapy, and regular follow-up. As part of the initial assessment, we reviewed the tobacco cessation medications Mr. R had used during past quit attempts. Mr. R had previously tried the nicotine patch, nicotine gum, and varenicline. He did not feel the nicotine patch was helpful, did not care for the taste of the nicotine gum, and reported feeling more agitated when taking varenicline. While he had previously found the nicotine patch to be ineffective, he was willing to try it again. We discussed the importance of using the appropriate dosage of nicotine replacement therapy (NRT) and the effectiveness of combination NRT. Together, we developed the plan to first try combination NRT (21 mg nicotine patch and 4 mg nicotine lozenge). While waiting a couple of weeks to get his prescriptions filled, Mr. R continued to work on behavioral strategies (such as delaying smoking and limiting the number of cigarettes he could smoke.) Mr. R was unable to get the nicotine lozenge covered by his insurance, so he initially just got the nicotine patch. Mr. R did not begin using the nicotine patch right away, as he had been reading a book about quitting smoking that discouraged him from wanting to try tobacco cessation medication. We reviewed with him how tobacco cessation medication could assist with the physical nicotine withdrawal symptoms. Mr. R decided to first focus on behavioral strategies without the medication.

We worked with Mr. R to address the psychological aspects of his smoking using a variety of techniques, including tracking his smoking, behavioral approaches (changing locations he kept his cigarettes or could smoke, not bringing cigarettes with him when he left the house, delaying smoking, creating new routines), and stress reduction techniques (deep breathing, stepping away from situations). Mr. R implemented a number of these strategies and found that his smoking fluctuated, often impacted by stressors in his life. Approximately one month after his initial visit with NDP, Mr. R opted to try the 21 mg nicotine patch for a couple of days. He did not find it very effective and thus opted to discontinue using it. We discussed with him giving it a longer trial period to see its effectiveness and the potential value of adding in a short-acting NRT. Mr. R periodically considered trying NRT but ultimately would opt not to do so. Three months after his initial visit with NDP, Mr. R was hospitalized for surgery. He intended to use this week-long hospitalization as the start for being tobacco free. Unfortunately, after being discharged he relapsed to smoking. While he continued to implement behavioral strategies and meet with our program on a monthly basis, he was not consistent in his use of any tobacco cessation medication.

Six months after his initial visit with the program, Mr. R learned that his cancer had metastasized to his lungs. Despite this new diagnosis, Mr. R continued to be motivated to quit smoking. He opted to purchase the nicotine lozenge and paid for it himself, since he had been unable to get it covered by his health insurance. Although he did not particularly care for the taste, he used the lozenge in an effort to help reduce his smoking. He would inconsistently use the nicotine patch along with the nicotine lozenge. With intermittent use of recommended combination NRT, Mr. R decreased his smoking to 10 cpd. Mr. R expressed interest in trying bupropion. At that point, he was enrolled in a clinical trial and therefore needed approval from the study before starting the medication. While he received approval and got a prescription for the medication, he ultimately opted not to use it. Instead he began consistently using combination NRT and reduced his smoking to 5 cpd.

Nine months after the initial counseling session with NDP, Mr. R successfully became tobacco free. Staying tobacco free had its challenges, especially when he was bored, stressed, or around people who were smoking. At various times throughout his quit attempts, Mr. R noted some typical nicotine withdrawal symptoms (feeling more irritable and less patient). He was open to trying strategies such as deep breathing and using short-acting NRT to help him during those times. Despite these challenges and his declining health, Mr. R maintained his determination to live tobacco free in the last months of his life. It was important for him to be a positive role model for his children, secure in the knowledge that they would remember him as someone who did everything possible to live longer, including becoming tobacco free. He also felt good knowing he had accomplished something that was important to his wife. Finally, he noted that his breathing had improved on a daily basis, contributing to a better quality of life.

Discussion

While quitting smoking would not lead to a cure for Mr. R's disease, it was nonetheless important to him. His reasons for quitting included both the significance it had for his family and his short-term health. Even when he knew that

Table 1. Tobacco Cessation Resources for Clinicians

Organization	*Contact*	*Resources available*
Agency for Healthcare Quality and Research	www.ahrq.gov/topics/tobacco-use.html	U.S. Department of Health and Human Services site contains many resources, including Treating Tobacco Use Clinical Practice Guidelines.
American Academy of Family Physicians	www.aafp.org/home.html	''Tobacco Abuse and Dependence'' topic links to many articles and resources for clinicians on treatment, patient education, and more.
American Cancer Society	www.cancer.org	Stay Away From Tobacco campaign offers free and up-to-date resources for patients who wish to quit tobacco.
American Heart Association	www.heart.org	Helpful resources for clinicians to provide to patients, including interactive tools such as cost of smoking calculator and smoking quiz to raise awareness of the dangers of tobacco and the benefits of a nonsmoking life.
American Lung Association	www.lung.org/our-initiatives/tobacco/	Information on tobacco initiatives, including FDA oversight of tobacco products, health insurance coverage for cessation treatments, and more.
Association for the Treatment of Tobacco Use and Dependence (ATTUD)	www.attud.org	ATTUD is an organization of providers dedicated to the promotion of and increased access to evidence-based tobacco treatment for the tobacco user.
Become an EX	www.becomeanex.org	Become an EX is a free quit smoking plan with advice from Mayo Clinic experts and a supportive online community.
Centers for Disease Control and Prevention	www.cdc.gov/tobacco	CDC's Office of Smoking and Health is the lead federal agency for comprehensive tobacco prevention and control. Website offers fact sheets and up-to-date information about how cigarette smoking and secondhand smoke cause disease, disability, and death. Tips from former smokers' campaign feature real stories of people living with smoking-related diseases and disabilities.
North American Quitline Consortium	www.naquitline.org	Connect to quitlines in every U.S. state.
Smokefree.gov	smokefree.gov	Specifically geared toward individuals who wish to quit with toolkits and resources for the healthcare providers who support them.
Smoking Cessation Leadership Center	smokingcessationleadership.ucsf.edu	Downloadable curricula, toolkits, fact sheets, infographics, and more for healthcare providers.
TreatTobacco.net	www.treatobacco.net	Hosted by the Society for Research on Nicotine and Tobacco and the Society for the Study of Addiction, this website provides ''independent authoritative information on the treatment of tobacco dependence.''
You Quit, Two Quit	youquittwoquit.org	Geared toward pregnant women and their families. Resources and free training on evidence-based tobacco use screening and cessation counseling for healthcare practices.
Motivational Interviewing Network of Trainers (MINT)	www.motivationalinterviewing.org	A multitude of resources for those seeking more information about MI techniques. Contains links to the latest research on MI techniques, MI trainings and events, and MI in the news.
Substance Abuse and Mental Health Services Administration (SAMHSA)	www.integration.samhsa.gov/clinical-practice/motivational-interviewing	Contains links to resources for incorporating MI into various clinical modalities and webinars about MI techniques.
Treating Tobacco Use and Dependence: Clinical Practice Guideline, 2008 Update	www.ahrq.gov/professionals/clinicians-providers/guidelines-recommendations/tobacco/clinicians/update/	Written specifically for clinicians and sponsored by the U.S. Public Health Service and the U.S. Department of Health and Human Services, this document provides current and definitive clinical practice guidelines on the treatment of tobacco dependence.

MI, motivational interviewing.

he had only a few months left to live, being an example for his children provided him with the motivation to remain tobacco free and avoid relapse. It is clear from all interactions with Mr. R and his family that being tobacco free had improved his quality of life. Mr. R appreciated that the on-site NDP in the cancer center offered him long-term support for the difficult process of cutting down, relapsing, and then ultimately quitting. He took pride in his ability to end a decade-long addiction and remain tobacco free, even in the face of the stress of a cancer diagnosis and treatment. Working on becoming tobacco free gave Mr. R a tangible sense of control in the midst of an illness over which he had little control.

Patients' desire and motivation to quit tend to be higher at the time of a cancer diagnosis, and a correlation exists between the cancer type and interest in tobacco cessation.[13,15,19] Patients endorse a wide variety of motivations for becoming tobacco free, not all of them related to physical health.[6] In the case of Mr. R, psychosocial reasons were his primary motivation. Healthcare providers may be most knowledgeable about the physiological consequences of tobacco use and the health benefits for quitting. They can also have understandable reservations about addressing tobacco use, whether related to the time and expertise required or concern about increasing patient stress or guilt.[10,16,20,21] For example, it could be that some of Mr. R's providers, in saying he did not need to worry about quitting, may have been validating his initial stated desire not to try, feeling this would lessen any guilt about not quitting. Medical professionals who feel that time constraints or lack of expertise in tobacco treatment impedes their ability to counsel patients can still briefly address tobacco use, write prescriptions for tobacco cessation medications, and refer patients to community resources or a quitline to extend care.

Being knowledgeable about a few key strategies related to tobacco treatment can assist with patient/provider discussion. Tools, such as the 5 As (Ask, Advise, Assess, Assist, and Arrange) and 5 Rs (Relevance, Risks, Rewards, Roadblocks, and Repetition), help providers guide the conversation with their patients.[1,22] Motivational interviewing (MI), a collaborative approach that allows patients to identify their ambivalence about change,[23] has proven helpful in discussing tobacco use with patients. Basic concepts of MI include being client centered, expressing empathy, evoking patient motivation, increasing change talk, expressing acceptance and compassion, and encouraging the patient's self-efficacy.[23–26] Table 1 identifies additional resources that clinicians can use with patients who use tobacco products.

Even though some patients will not be interested in making a quit attempt, clinicians are still encouraged to address the patient's tobacco use. Richter and Ellebeck (2014) propose an ''opt out'' model for tobacco treatment in medical settings. In this model, every patient with a history of tobacco use would receive tobacco treatment unless the person declines. By including tobacco use treatment as standard protocol regardless of the patient's readiness to quit, providers would not have to decide ''if'' treatment should be provided.[27] Counseling about changing tobacco use behavior has proven to increase the likelihood of patients making quit attempts or reducing their tobacco use.[28] Patients not ready to make a quit attempt may still be open to trying tobacco treatment medication or decreasing their tobacco use, a technique known as harm reduction.[29] As more cancer centers begin to integrate tobacco use treatment into treatment protocols, our case offers insight into a specific population of cancer patients, those with incurable malignancies and, often, shortened life expectancies. Ideally, this case study will encourage oncologists and other providers treating incurable illnesses to consider treatment for tobacco use in the context of the whole person, where biopsychosocial/spiritual needs intersect. Asking patients their thoughts about becoming tobacco free and offering supportive resources can make a difference. Within this framework, it is never too late to engage patients in efforts to become tobacco free.

While this case takes place in a cancer center, it can also be relevant for offering treatment to patients with other potentially terminal illnesses (e.g., certain cardiovascular diseases, HIV/AIDS, end-stage renal disease.) Asking patients their thoughts about becoming tobacco free and offering supportive resources can make a difference. Palliative care seeks to improve quality of life by addressing the physical, psychosocial, and spiritual aspects of a person diagnosed with a life-threatening illness. Offering treatment interventions for tobacco use can improve multiple patient-centered outcomes and thus should be considered a relevant intervention for palliative care.

Please note that any identifiable information has been changed for anonymity.

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