Implementation of Tobacco Dependence Treatment Programs in Oncology Settings

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Objectives: *To discuss strategies for implementing tobacco dependence treatment in cancer care and the role of oncology nurses.*

Data Sources: *Evidence-based clinical practice guidelines for tobacco dependence treatment, published literature and Web sites.*

Conclusion: *There are many benefits of quitting smoking after a diagnosis of cancer. Implementation of tobacco dependence treatment can improve patient outcomes but requires system changes. The electronic health care record, access to telephone quit lines for smoking cessation, resources for providers, and changes in insurance coverage all facilitate the delivery of treatment.*

Implications for Nursing Practice: *Oncology nurses can play an important role in championing tobacco dependence treatment in cancer care.*

Key Words: *tobacco dependence treatment, tobacco-related cancer, smoking cessation, quit line, electronic health record, oncology nurses.*

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Tobacco use causes multiple cancers (ie, acute leukemia, bladder, cervix, colon, esophageal, head and neck, kidney, larynx, liver, lung); and 30% of cancer deaths are because of tobacco use.[1] Exposure to secondhand smoke also is linked to increased cancers and cancer death.[2] The nicotine in tobacco is highly addictive, leading to dependence.[1] Quitting smoking leads to both short- and long-term health benefits.[3] However, quitting smoking is very difficult. Even after a diagnosis of cancer, some patients continue to smoke[4-6] and require help to quit.

Many cancer control organizations have policies that recommend treatment of tobacco dependence as a priority for patients diagnosed with

cancer, including The American Association for Cancer Research,[7] the American Society for Clinical Oncology,[8] the National Comprehensive Cancer Network,[9] the International Society of Nurses in Cancer Care, and the Oncology Nursing Society.[10] However, programs to support quit efforts are not widely available to patients as part of their care, even in cancer centers.[11-14] In 2009, slightly more than half of US National Cancer Institute-designated cancer centers had a tobacco dependence treatment program within their center,[12] and one out of five offered no tobacco cessation support for their patients.[13] In 2013, fewer than half (39%) of the members of American Society for Clinical Oncology offered smoking cessation medications to patients trying to quit smoking.[11] Providing support for patients' quit efforts is easier if tobacco dependence treatment programs are part of the system of care within hospital and ambulatory settings. Oncology nurses can have an important role in providing and supporting comprehensive tobacco dependence treatment.[15] The purpose of this article is to discuss tested strategies to foster the development and implementation of tobacco dependence treatment in health care settings, especially settings where cancer care is delivered.

Background

Forty million adults in the United States (16.8%) 18 years of age or older are current smokers.[3] All forms of tobacco use increase cancer risk; smokers are three times more likely to die from cancer than nonsmokers.[16] Data describing tobacco use among cancer patients are not widely available because these data are not routinely collected. For example, among newly diagnosed cancer patients in the California Cancer Registry 2011–2012 (the first year that such data were recorded), 71% of cases had no specific information about smoking status. Of those with data on tobacco use, 16% were current smokers, 36% were former smokers, and 48% never smokers.[17] Current smoking was highest among those newly diagnosed with lung cancer (42%), colon-rectum cancer (14%), urinary bladder (8%), and those with cancers of the oral cavity (8%).

Fifty years after the first Surgeon General Report linking smoking and cancer, the 2014 Surgeon General's Report, *The Health Consequences of Smoking-50 years of Progress*, provided evidence that continued smoking after a cancer diagnosis causes harm.[1] Smoking increases the risk of recurrence, risk of a second primary cancer, disease progression, increases side effects of treatment, and increases the risk for comorbid conditions (eg, cardiovascular and respiratory diseases). It also interferes with recovery (eg, impaired wound healing), diminishes quality of life, and lowers overall survival.[14,18,19] The benefits of quitting for all smokers are described in Table 1. Despite these facts, support for quit efforts of patients who use tobacco is not a routine part of cancer treatment and survivorship care.

TABLE 1.
Health Benefits of Quitting Smoking

Within 20 minutes	• Blood pressure drops to normal • Pulse slows to normal
Within 8 hours	• Oxygen level in blood increases to normal • Carbon monoxide in blood decreases
Within 24 hours	• Risk of heart attack decreases
Within 48 hours	• Sense of smell and tastes improve • Damaged nerve endings start to re-grow
Within 72 hours	• Nicotine out of the body • Breathing becomes easier
2 weeks to 3 months	• Blood circulation improves • Exercise becomes easier • Lung function may increase by 30%
1 to 9 months	• Coughing, shortness of breath, and sinus congestion decrease • Cilia re-grow in lungs, increasing capacity for lungs to clean themselves and reduce infection • Energy level increases
1 year	• Risk of heart disease reduced by half
5 years	• Risk of stroke decreases to level of non-smokers
10 years	• Risk of lung cancer reduced by half • Incidences of other cancers (mouth, larynx, esophagus, bladder, kidney and pancreas) all decrease
15 years	• Overall risk of death returns to that of a never smoker • Risks of heart disease and lung cancer return to that of a never smoker

Data from the Centers for Disease Control and Prevention. Fast facts. (http://www.cdc.gov/tobacco/data_statistics/fact_sheets/fast_facts/index.htm).[3]

The Gold Standard for Tobacco Dependence Treatment

A significant impact in tobacco-related morbidity and mortality could occur if people who smoke