



University of Nebraska  
Medical Center  
Nebraska Medicine

Graduate Medical Education  
Research Journal

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Volume 2 | Issue 1

Article 3

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September 2020

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### Recommended Citation

Klute, L. (2020). Tobacco Cessation and Cancer Patients: Perspective of an Ent Resident . Omaha, NE: Graduate Medical Education Research Journal.

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### Keywords

tobacco, cessation, cancer, ENT

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### Cover Page Footnote

Thank you to Tom Klingemann, Pharm. D. and Jill Selzle, PA-C for providing education on the Tobacco Dependence Clinic.

# Tobacco Cessation and Cancer Patients – Perspective of an ENT Resident

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Between 2009 and 2013, 343,000 people died per year from a cancer related to tobacco use. Three in ten deaths related to cancer were secondary to cigarette smoking.<sup>1</sup> Head and neck cancer (HNSCC), in particular, is a devastating disease and the sixth most common form of cancer worldwide. Studies have shown that the risk of HNSCC in smokers is 10 times higher than that of never-smokers, and 70-80% of new HNSCC diagnoses are associated with tobacco and alcohol use.<sup>1,2</sup> HNSCC is particularly debilitating as patients can be left unable to communicate, tube fed, and with various cosmetic disfigurements. Additionally, many of these patients are unable to return to work and must rely on state-sponsored income.

Research shows that continuing to smoke following a cancer diagnosis can result in reduced treatment effectiveness (diminished radiation efficacy), worsens prognosis, and contributes to an increase in cancer recurrence. Smoking can also result in higher complication rates, poorer surgical outcomes, and second primary cancers.<sup>3</sup> Chen et al. found that patients who continued smoking throughout radiation treatment demonstrated inferior five-year overall survival (23% vs. 55%), loco-regional control (58% vs. 69%), and disease-free survival (42% vs. 65%) compared to non-smokers.<sup>4</sup> Post-operative patients were six times more likely to have a complication including vascular, pulmonary, renal, anemia, ethanol withdrawal, wound complications, urinary tract infections, and delirium, in addition to a longer length of stay.<sup>5</sup> Frequently HNSCC patients require free flap tissue transfer in order to close ablative defects and improve function.

Tobacco and nicotine impair wound healing and end-organ O<sub>2</sub> delivery. This can lead to luminal thrombosis and flap failure.<sup>5</sup> Many of those patients require another flap or are faced with long-term wound management.

After a life-changing diagnosis, many patients are highly motivated to quit smoking. Most cancer patients will make an attempt within six months of their diagnosis. Participating in a tobacco cessation program can increase the likelihood of a successful quit attempt and can result in sustained high abstinence rates.<sup>6</sup> Studies have shown that the combination of behavioral and pharmacological treatments for nicotine dependence has led to significant progress in the abstinence attempts.<sup>7</sup> Thus,

several hospitals have attempted to develop smoking cessation programs. One such program consisted of an initial in-person medical consultation, followed by 6-8 in-person or telephone counseling sessions, and 10-12 weeks of pharmacotherapy.<sup>6</sup> Several programs have integrated tobacco cessation specialists into the office work-flow.

Hospitalization offers a unique opportunity to initiate cessation and can provide access to interventions. From a systematic review of tobacco cessation interventions for hospital smokers, the most promising strategies were training nurses to deliver bedside interventions and facilitating the use of nicotine replacement therapy after discharge by providing a free supply.<sup>8,9</sup> In the initial study, nurses were educated on counseling for in-patients and provided toolkits for patients to assist in smoking cessation. This program also enrolled patients in follow-up phone calls by hospital volunteers at 2, 7, 14, 21, and 30 days. Following this program, there was significant improvement in six month quit rates.<sup>10</sup> The Medical University of South Carolina instituted a policy that all hospitalized patients who self-report using tobacco be referred to tobacco cessation services. This consisted of a bedside consult and phone follow-up at 3, 14, and 30 days. Receiving this consultation while hospitalized increased the use of medications and abstinence from smoking after discharge.<sup>11</sup> Several hospitals have implemented programs for referrals to state quit lines. While referral to the state quit line can also assist with follow-up and counseling, this referral has not necessarily been shown to improve abstinence rates.<sup>8</sup>

The University of Nebraska Medical Center (UNMC) strives to provide comprehensive care of patients and integrating a smoking cessation program into the various cancer specialties will improve patient outcomes and survival. Leading the way in tobacco cessation at UNMC are Jill Selzle, PA-C, Susie Moore, APRN, and Tom Klingemann, PharmD. Ms. Selzle and Ms. Moore currently run the Tobacco Dependence Clinic through the Office of Thoracic Surgery. They are trained certified tobacco treatment specialists. They utilize personal treatment plans, implement behavioral techniques, and offer medications. “Their goal is to help patients understand the science, withdrawal, symptoms, and treatments.”<sup>12</sup> Dr. Klingemann, provides

education encompassing the psychological and physical triggers in routines. His goal is to merge available and effective therapies.<sup>12</sup>

Boundaries to instituting cessation programs do exist. As previously discussed, the most successful quit attempts rely on behavioral intervention in addition to medication therapy. Currently, UNMC has limited staff that are trained in tobacco cessation counseling and providers who are well-versed in medications and side effects. Smoking cessation interventions can also be difficult to integrate into current out-patient workflow.

Starting the discussion about smoking cessation can require a time investment from the provider and associated staff. Proximity to services can also be a barrier, as many patients hail from Western Nebraska or the surrounding states. Finally, there is also a vast variability in the coverage from insurance companies. While the federal law requires many plans to cover tobacco cessation services, there is significant variability in the coverage terms. Many require copays or prior authorization for treatments and medications. Some policies limit treatment duration to 90 days and limit the number of total quit attempts.<sup>13</sup> Despite these boundaries, the patients would benefit from further cessation programs provided by UNMC. ■

<https://doi.org/10.32873/unmc.dc.gmerj.2.1.005>

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