

## Association Between Tobacco Use, Symptom Expression, Alcohol and Illicit Drug Use in Advanced Cancer Patients

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**Abstract:** Context. Limited knowledge exists examining the association between smoking status, symptom expression, and alcohol or illicit drug use.

Objectives. The goal of this study was to clarify these associations in patients with advanced cancer.

Methods. We retrospectively reviewed 560 charts and identified 300 consecutive advanced cancer patients who completed a comprehensive smoking questionnaire. Data including the Edmonton Symptom Assessment System (ESAS), CAGE (Cut down/Annoyed/Guilty/Eye opener) alcoholism screening questionnaire, illicit drug use history, and daily opioid requirements -- morphine equivalent daily dose (MEDD) -- were collected.

Results. Among 300 patients, 119 (40%) were never smokers, 148 (49%) former smokers, and 33 (11%) current smokers. The most common malignancies were gastrointestinal (28%) and lung (20%). Current smokers were more likely to be single ( $P<0.01$ ) and significantly younger than former smokers ( $P<0.001$ ), but did not differ in age from never smokers. Never smokers were more likely to be female ( $P<0.001$ ). Current smokers reported significantly higher pain expression than former and never smokers (median 7 vs. 5.5 vs. 5, respectively,  $P=0.02$ ), higher CAGE positivity (42% vs. 21% vs. 3%,  $P<0.001$ ) and were more likely to have a history of illicit drug use (33% vs. 16% vs. 3%,  $P<0.001$ ). The MEDD was not significantly different according to smoking status.

Conclusion. In advanced cancer, patients who were former or current smokers were significantly more likely to have a history of CAGE positivity and illicit drug use compared with never smokers. Current smokers expressed significantly higher pain. A smoking history may be a marker of an increased risk of opioid misuse. *Journal of Pain and Symptom Management (2016), doi: 10.1016/j.jpainsymman.2015.11.012.*

**Strengths:** Comprehensive and appropriate data was collected for those included in the study, including a detailed smoking history, other substance use/abuse history, and symptom profile. Addresses an area (smoking status, pain expression and opioid use) with a paucity of research.

**Weaknesses:** As indicated by authors, small numbers, particularly of current smokers, limits the power of this study. Also, data collection was retrospective. Only 59% of patients identified were seen in followup after initial consultation, so there lacks continuity in the information presented.

**Relevance to palliative care:** Smoking, both past and present, is unfortunately still a common practice among palliative patients. Knowing a patient's smoking history appears to be yet another way in which palliative care providers can assess how a patient may perceive their symptoms, how these symptoms are best managed, and may help to highlight those patients most likely to engage in chemical coping. In some situations, patients or providers may be uncomfortable or untruthful when answering the CAGE questionnaire, though more forthcoming with a smoking history. Identifying those at risk for chemical coping is important and it helps to inform care providers of possible issues, and also highlights areas to be addressed with psychosocial supports.