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Immediate Smoking Cessation Among People Living with HIV

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Smoking, among HIV-infected individuals, is also a major cause of morbidity and mortality (1-3). Over 40% of HIV-infected people in the United States smoke; additionally 20% are former smokers (4). Furthermore, HIV-infected smokers seem to face higher rates of cardiovascular disease, chronic obstructive pulmonary disease, and numerous primary cancers compared with rates expected from smoking itself (5-7). However, antiretroviral therapy (ART) has improved their life expectancy (8, 9). HIV-infected individuals are now living long enough to develop smoking-associated diseases. Unfortunately, in HIV care, smoking cessation interventions have not been widely implemented.

HIV increases the risk of lung cancer, independently. In a validated microsimulation model of HIV, they applied standard demographic data and recent HIV/AIDS epidemiology statistics with specific details on smoking exposure, combining smoking status (current, former, or never) and intensity (heavy, moderate, or light). They have reported that mortality rates are attributable to lung cancer and other non–AIDS-related leads by smoking exposure and accounted for an HIV-conferred independent risk of lung cancer. For male and female, lung cancer mortality risk ratios (vs. non smokers) current moderate smokers were 23.6 and 24.2, respectively. In addition, those who quit smoking at age 40 years were 4.3 and 4.5. In the sensitivity analyses, we accounted for non-adherence to antiretroviral therapy (ART) and for a range of HIV-conferred risks of death from lung cancer and from other non-AIDS-related diseases (e.g., cardiovascular disease) (10).

The main outcomes and measures demonstrated cumulative lung cancer mortality by the age of 80 (stratified by sex, age at entry to HIV care, and smoking exposure); total expected lung cancer deaths accounting for non-adherence to ART (10).

The results demonstrated that among 40-year-old men with HIV, estimated cumulative lung cancer mortality for heavy, moderate, and light smokers who continued to smoke was 28.9%, 23.0%, and 18.8%, respectively, for those who quit smoking at the age of 40, it was 7.9%, 6.1%, and 4.3%, and for non smokers, it was 1.6%. The corresponding mortality for current smokers was 27.8%, 20.9% in women, and 16.6%, for former smokers, it was 7.5%, 5.2%, and 3.7%, and for non smokers, it was 1.2%. ART-adherent individuals who continued to smoke were 6 to 13 times more likely to die from lung cancer rather than from traditional AIDS-related causes, depending on sex and smoking intensity. Individuals with incomplete ART adherence had a higher overall mortality due to greater AIDS-related mortality risks but lower lung cancer mortality. Applying model projections to approximately 644,200 PLWH aged 20 to 64 in the United States, 59,900 (9.3%) are expected to die from lung cancer if smoking habits do not change (10).

We concluded that those PLWH who adhere to ART but smoke are substantially more likely to die from lung cancer than from AIDS-related causes.

In Iran, expansion of the criteria for including more patients on treatment of HIV with any CD4 cell count is appearing on increasing life expectancy of patients living with HIV. Therefore, the priority of smoking cessation among HIV population is one of the major concerns for a better quality of life.

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