

Mortality Following Inpatient Addictions Treatment:

Role of Tobacco Use in a Community-Based Cohort

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JAMA. 1996;275(14):1097-1103. doi:10.1001/jama.1996.03530380039029.

ABSTRACT

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Objective. —To determine the impact of tobacco- and alcohol-related deaths on overall mortality following inpatient treatment for alcoholism and other nonnicotine drugs of dependence.

Design. —Population-based retrospective cohort study.

Setting. —Olmsted County, Minnesota (the Rochester Epidemiology Project), and the Inpatient Addiction Program (IAP) at Mayo Clinic, Rochester.

Patients. —All 845 Olmsted County residents admitted to an inpatient addiction program for treatment of alcoholism and other nonnicotine drugs of dependence during the period 1972 through 1983.

Methods. —Patients were followed up through the medical record linkage system of the Rochester Epidemiology Project through December 1994 to obtain vital status, and death certificates were obtained for those who died. The underlying cause of death was classified as alcohol related, tobacco related, both, or neither based on the classification from the Centers for Disease Control and Prevention. The observed number of deaths by underlying cause was compared with the expected number using cause-specific 1987 death rates for the white population of the United States. All-cause mortality was also compared with that expected for persons in the West North Central Region of the United States of like age, sex, and year of birth. Univariate and multivariate assessments were made to identify predictors of all-cause mortality from baseline demographic information.

Results. —At admission, the mean (SD) age of the 845 patients was 41.4 (14.5) years, and 35% were women. Altogether, 78% had alcohol as their only nonnicotine drug of dependence and 18% had alcohol and other nonnicotine drugs of dependence, while 4% were classified as having a nonalcohol, nonnicotine drug dependence alone. At admission, 75% were current and 8% former cigarette smokers, 3% were current cigar or pipe smokers, and 2% were current users of smokeless tobacco. Follow-up after the index IAP admission totaled 8913 person-years (mean [SD] of 10.5 [5.6] years per patient). Death certificates were obtained for 96% (214) of the 222 patients who died. Of these 214 deaths, 50.9% (109) had a tobacco-related and 34.1% (73) had an alcohol-related underlying cause ($P < .001$). The cumulative mortality significantly exceeded that expected ($P < .001$); at 20 years, the observed mortality was 48.1% vs an expected 18.5%. Multivariate predictors of mortality, even after adjusting for expected mortality, were older age at admission ($P < .001$) and male sex ($P < .001$).

Conclusions. —Patients previously treated for alcoholism and/or other nonnicotine drug dependence had an increased cumulative mortality that was due more to tobacco-related than to alcohol-related causes. Nicotine dependence treatment is imperative in such high-risk patients. (*JAMA*. 1996;275:1097-1103)