

Smoking Cessation with Nicotine Replacement Therapy among Health Care Workers: Randomized Double-blind Study

Duška Glavaš, Mirjana Rumboldt¹, Zvonko Rumboldt

Department of Internal Medicine; and ¹Department of Family Medicine, Split University Hospital and School of Medicine, Split, Croatia

Aim. To assess the smoking prevalence and efficacy of nicotine replacement therapy on the quitting rate after 3 weeks of therapy and after 1- and 5-year follow-up among health care workers with a smoking habit in Split, Croatia.

Methods. Among 311 hospital health professionals included in the study, there were 112 (36%) smokers; 44 (39%) of them were physicians and 68 (61%) nurses. In a randomized double-blind study, 112 smokers were divided in 2 groups, applying daily either a transdermal nicotine system (TNS) or placebo patch over 3 weeks. Abstinence was evaluated via questionnaire and on the basis of carbon monoxide concentration measured in the exhaled breath.

Results. The abstinence rates after the 3-week intervention period were 39% in the TNS group and almost 20% in the control group (chi-square test, $p=0.038$). After one year, these rates declined to 23% and 16%, respectively ($p=0.476$), and converged to 18% and 14% ($p=0.797$), respectively, at 5-year follow-up.

Conclusions. Short-term TNS treatment is effective in smoking cessation, although the effects steadily wane over time and the relapse rate is high. Continuous, structured, and composite efforts are needed for the maintenance of the non-smoking behavior.

Key words: double-blind method; health personnel; nicotine; smoking; smoking cessation; tobacco use disorder