Library Watch on nicotine

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A programme for reducing smoking in pre-operative surgical patients: Randomised controlled trial.

Wolfenden L; Wiggers J; Knight J; Campbell E; Rissel C; Kerridge R et al. *Anaesthesia* 60(2): 172-179, 2005. (35 refs.)

We assessed the efficacy of a comprehensive programme for stopping smoking in 210 smokers scheduled for surgery, before admission and 3 months after attending a pre-operative clinic. Participants were randomly allocated to receive an intervention incorporating nicotine replacement therapy for patients smoking more than 10 cigarettes per day ('dependent smokers'), or to a control group to receive usual care. Dependent smokers allocated to the intervention group were more likely to report abstinence before surgery than those allocated to receive usual-care (63 (73%) vs. 29 (56%), respectively; OR 2.2 (95% CI 1.0-4.8)), and 3 months after attendance (16 (18%) vs. 3 (5%), respectively; OR = 3.9 (95% CI 1.0-21.7).

Adoption of tobacco treatment interventions by substance-abuse-treatment clinicians.

Friend KB; Levy DT. *Drugs: Education, Prevention and Policy* 11(1): 1-20, 2004. (164 refs.)

Patients in treatment for substance use disorders tend to smoke at higher rates than the general population. However, despite the fact such patients may be interested in smoking cessation and have been shown to be able to quit successfully without jeopardizing their sobriety, clinicians are often reluctant to advise their patients to stop smoking. The purpose of this paper is to review factors associated with the adoption of tobacco treatment interventions (TTIs) in the general population and among patients in recovery. We attempt to identify barriers to TTI use and determine where interventions should be directed. Studies were collected using various computerized databases and in consultation experts on tobacco control. We conclude that obstacles to TTI adoption involve the interaction of individual clinician, organizational, and environmental factors, and that changes in all three are needed to increase TTI adoption among substance abuse treatment clinicians. Finally, we offer suggestions regarding where future research is warranted.

A randomized trial of telephone counseling with adult moist snuff users.

Boyle RG; Pronk NP; Enstad CJ. *American Journal of Health Behavior* 28(4): 347-351, 2004. (22 refs.)

Objective: To evaluate telephone counseling for moist snuff use. Methods: We recruited 221 adult males using snuff and randomized them into a telephone-counseling intervention or a quit-manual comparison group. Subjects were contacted by mail at 3 and 6 months to complete a 4 page follow-up questionnaire. Results: A significantly higher proportion of subjects randomized to the intervention quit tobacco at each time point compared to the comparison group. Conclusions: With appropriate staff training, moist snuff and other types of nonsmoked tobacco should be added to the state-funded smoking cessation quit lines started in recent years.

Do cigarette smokers with erectile dysfunction benefit from stopping?: a prospective study.

Pourimand G; Alidaee MR; Rasuli S; Maleki A; Mehrsai A. *BJU International* 94(9): 1310-1313, 2004. (30 refs.)

OBJECTIVE: To assess whether stopping smoking can improve erectile dysfunction (ED) in smokers, as cigarette smoking is a known risk factor for ED. PATIENTS and METHODS: Smokers who requested nicotine replacement therapy (NRT) and complained of ED were first evaluated for hypertension, dyslipidaemia, diabetes, psychiatric disorders and drug history. The grade of ED in smokers with none of these risk factors was then determined using the five-item version of the International Index of Erectile Function (IIEF-5) before NRT, and the grading repeated after 1 year of follow-up. The correlation between the exposure to smoking (pack-years) and severity of ED was assessed before the follow-up. The ED status between patients who stopped smoking after NRT and those who continued during the follow-up was then compared before and after the follow-up. RESULTS: The severity of ED correlated significantly with the level of exposure to smoking. Age and ED status before the follow-up were not significantly

different between 118 patients who stopped (ex-smokers) and 163 who continued smoking (current smokers). After 1 year the ED status improved in greater than or equal to 25% of ex-smokers but in none of the current smokers; 2.5% of ex-smokers and 6.8% of current smokers had a deterioration in ED. Ex-smokers had a significantly better ED status after the follow-up (P = 0.009). Among ex-smokers, patients with advanced ED and those who were older had less improvement. CONCLUSION: There is a strong association between the intensity of cigarette smoking and degree of ED. Stopping cigarette smoking can improve ED in a considerable proportion of smokers. Age and the severity of ED before stopping are inversely related to the chance of improvement.

Extended nortriptyline and psychological treatment for cigarette smoking.

Hall SM; Humfleet GL; Reus VI; Munoz RF; Cullen J. *American Journal of Psychiatry* 161(11): 2100-2107, 2004. (26 refs.)

Objective: Accepted treatments for cigarette smoking rarely achieve abstinence rates of >35% at 1 year. Low rates may reflect failure to provide extended and multifocal treatment for this complex and chronic addiction. Using a chronic disease model of smoking, the authors undertook a study to determine the effects of long-term antidepressant and psychological treatment. Method: One hundred sixty smokers of greater than or equal to10 cigarettes/day were randomly assigned to one of four treatment conditions in a two-by-two (nortriptyline versus placebo by brief versus extended treatment) design. All subjects received 8 weeks of a transdermal nicotine patch, five group counseling sessions, and active or placebo treatment. Interventions for subjects in brief treatment ended at this point. Subjects in extended treatment continued taking drug or placebo to week 52 and received an additional 9 monthly counseling sessions, with checkup telephone calls midway through each session. Subjects were assessed at baseline and weeks 12, 24, 36, and 52. The principal outcome variables were repeated abstinence at each assessment after the first over a 1-year period and a point prevalence of 7 days of abstinence. Results: At week 52, point-prevalence abstinence rates with missing subjects imputed as smokers were 30% for placebo brief treatment, 42% for placebo extended treatment, 18% for active brief treatment, and 50% for active extended treatment. With missing subjects omitted, these rates were 32%, 57%, 21 %,and 56%, respectively. Conclusions: Comprehensive extended treatments that combine drug and psychological interventions can produce consistent abstinence rates that are substantially higher than those in the literature.

Maternal smoking during pregnancy and risk of brain tumors in the offspring. A prospective study of 1.4 million Swedish births.

Brooks DR; Mucci LA; Hatch EE; Cnattingius S. *Cancer Causes and Control* 15(10): 997-1005, 2004. (52 refs.)

Objective: Studies of the effect of maternal smoking during pregnancy on development of brain tumors in the offspring generally have found no increase in risk but most have mainly relied on retrospective exposure assessment. We conducted a prospective study on a large birth cohort in Sweden. Methods: Women giving birth during 1983-1997 were classified as smokers or non-smokers based on information ascertained at the first prenatal visit and recorded in the Swedish Birth Register. Follow-up of brain tumor incidence among offspring through 1997 was achieved by linkage with the Swedish Cancer Register. Hazard ratios were estimated using Cox proportional hazard regression, adjusting for demographic characteristics available in the Birth Register. Results: Brain tumors (n = 480) occurred at a rate of 4.5 cases per 100,000 person-years. Children of women who smoked during pregnancy had an increased incidence of brain tumors (hazard ratio = 1.24; 95% confidence interval: 1.01-1.51). The increase in risk was similar for benign and malignant tumors, and was most apparent for astrocytoma. The effect of smoking on the occurrence of brain tumors was seen most strongly among 2-4 year-old children. Conclusions: These results support a role for maternal smoking during pregnancy in the etiology of childhood brain tumors. Our findings should be confirmed in other prospective studies.

Methods, locations, and ease of cigarette access for American youth, 1997-2002.

Johnston LD; O'Malley PM; Terry-McElrath YM. *American Journal of Preventive Medicine* 27(4): 267-276, 2004. (36 refs.)

Background: The purpose of this paper is to examine trends in middle and high school students' perceived ease, methods, and locations of access to cigarettes, and to assess differences related to their sociodemographic characteristics and smoking status. Methods: Annual data from nationally representative samples of 8th-, 10th-, and 12th-grade students were analyzed for the 1997-2002 period. Analyses were conducted in 2003. Results: Perceived ease of access decreased significantly among never and past smokers.

Decreased individual purchasing in retail outlets, as well as decreased purchasing from vending machines, were reported by 8th- and 10th-grade students. All grades reported decreased purchasing from self-service placements of cigarettes. Decreases in access were not reported across all retailer types, and no significant increases were seen in the percent of underage purchasers who reported being asked to show identification. Both gender and ethnicity were significantly related to where and how underage youth reported obtaining cigarettes. Conclusions: Cigarette access for minors has been declining, but remains high. Findings show that (1) perceived access to cigarettes clearly increases with level of smoking, and (2) policies to reduce such access may be having an impact as evidenced by decreased retail and vending machine purchases and self-service purchases. However, states should continue to strengthen efforts to reduce youth cigarette access, especially in the areas of confirming buyer age via identification checks, and should make efforts to decrease access across all retailer types. Federal regulations like those previously implemented by the Food and Drug Administration might strongly assist in reducing youth access to cigarettes.

Smoking cessation: A pilot study of the effects on health-related quality of life and perceived work performance one week into the attempt.

Erickson SR; Thomas LA; Blitz SG; Pontius LR. *Annals of Pharmacotherapy* 38(11): 1805-1810, 2004. (14 refs.)

Background: Most patients attempting to quit smoking experience symptoms that may influence functioning and sense of wellbeing. Objective: To conduct a pilot study to assess the acute effects of smoking cessation on health-related quality of life (HRQoL) and perceived work performance. Methods: Questionnaires were mailed to patients of a smoking-cessation program just prior to quit date and one week after they quit. The questionnaires included the Smoking Cessation Quality of Life Questionnaire and the Work Performance Scale (WPS). Other data included patient demographics, smoking duration, Fagerstrom Test for Nicotine Dependence scale, and smoking status. Student's t-tests were used for pre-post comparisons as well as comparison between higher addiction and lower addiction groups, with pless than or equal to0.05 used for determination of statistical significance. Results: Thirty-four respondents (higher addiction=12, lower addiction=22) averaged 48.6+/-12.0 (mean+/-SD) years of age and were primarily white (97.1%) and female (72.2%). From baseline to one week post-quit, there was significant worsening of anxiety (71.5+/-25.1 to 61.1+/-26.0; p=0.04) and cognitive functioning (72.2+/-20.4 to 61.3+/-23.9; p=0.02) scores and improved general health (65.2+/-18.4 to 70.5+/-16.9; p=0.01). HRQoL scores for the lower addiction group were higher than those for the higher addiction group, significantly for sleep, cognitive functioning, anxiety, role emotional and mental health. Both groups experienced significant improvement in self-control. The lower addiction group had a significant decline in sleep, cognitive function, and anxiety, while only one domain changed significantly for the higher addiction group. There were no significant differences in WPS analyses. Conclusions: This pilot study found that, generally, HRQoL changes one week into a smoking cessation attempt. Smokers with higher addiction have lower HRQoL when they begin their cessation attempt, while smokers with lower addiction have greater change in HRQoL.

Physical activity in relation to all-site and lung cancer incidence and mortality in current and former smokers.

Alfano CM; Klesges RC; Murray DM; Bowen DJ; McTiernan A; Weg MWV et al. *Cancer Epidemiology, Biomarkers & Prevention* 13(12): 2233-2241, 2004. (38 refs.)

Increased physical activity has been associated with a reduction in the incidence and mortality from all-site cancer and some site-specific cancers in samples of primarily nonsmoking individuals; however, little is known about whether physical activity is associated with similar risk reductions among smokers and ex-smokers. This study examined physical activity in relation to all-site cancer and lung cancer incidence and mortality in a sample of current and former smokers (n = 7,045; 59% male; 95% Caucasian; mean age, 63 years) drawn from the beta-Carotene and Retinol Efficacy Trial, a lung cancer chemoprevention trial. Hazard rate ratios and 95% confidence intervals associated with a 1 SD increase in physical activity were 0.86 (0.80-0.94) for all-site cancer only among men, 0.84 (0.69-1.03) for lung cancer only for younger participants, 0.75 (0.59-0.94) for cancer mortality among younger participants and 0.68 (0.53-0.89) among women, and 0.69 (0.53-0.90) for lung cancer mortality only among women. These results suggest that incidence may be more attenuated by physical activity for men and mortality more attenuated for women. Effects may be more pronounced for younger people and may differ inconsistently by pack-years of smoking. Physical activity may play a role in reducing cancer risk and mortality among those with significant tobacco exposure. Prospective studies using more

sophisticated measures of physical activity assessed at multiple time points during follow-up are needed to corroborate these associations.

Racial differences in trajectories of cigarette use.
White HR; Nagin D; Replogle E; Stouthamer-Loeber M. *Drug and Alcohol Dependence* 76(3): 219-227, 2004. (61 refs.)
This study examined racial differences in developmental trajectories of cigarette smoking from childhood into young adulthood. We used data from the Pittsburgh Youth Study, a prospective, longitudinal study of high-risk males. We developed trajectories of cigarette smoking from age 10 through age 25. Models were estimated separately for African-Americans (N = 562) and Whites (N = 421) because preliminary analyses indicated that there were significant racial differences in onset, levels and patterns of cigarette use. Three trajectory groups emerged for both races: nonsmokers, light/occasional smokers and heavy/regular smokers. Significantly more Whites were in the heavy/regular smoker group and more African-Americans were in the nonsmoker group. White compared to African-American heavy/regular smokers began smoking earlier and reached higher mean quantities of cigarettes per day. In addition, there were racial differences in the timing and rapidity of the development of regular smoking over time. Race remained a significant predictor of cigarette use even after controls for socioeconomic status. Overall, the results indicate that developmental trends in smoking differ by race and that cigarette smoking remains more prevalent and more frequent for White than African-American males, at least through young adulthood.

Under-use of smoking-cessation treatments:Results from the National Health Interview Survey, 2000.
Cokkinides VE; Ward E; Jemal A; Thun MJ. *American Journal of Preventive Medicine* 28(1): 119-122, 2005. (27 refs.)
Objective: To describe the rise of treatment for tobacco dependence in relation to insurance Status and advice from a healthcare provider in a population-based national sample interviewed in 2000. Methods: Analyses are based on 3996 adult smokers who participated in the National Health Interview Survey in 2000, and who provided information on tobacco-cessation treatments used at their most recent quit attempt occurring in the last year. Age-adjusted and weighted categorical analysis was used to compute prevalence estimates of self-reported treatments (pharmacotherapy and behavioral counseling) for tobacco dependence. Multivariate logistic regression analyses were used to examine factors associated with use of treatments. Results: Overall, 22.4% of smokers who tried to quit in the previous year used one or more types of cessation aid compared to 15% in 1986. Treatment usually involved pharmacotherapy (21.7%) rather than behavioral counseling (1.3%). Smokers attempting to quit were more likely to use cessation aids if covered by private (25.4%) or military (25.0%) insurance than by Medicare (17.8%), Medicaid (15.5%), or no insurance (13.2%). In a multivariate analysis of factors related to use of cessation aids, advice from a healthcare provider to quit smoking and the number of cigarettes smoked per day were significant predictors of treatment use, regardless of insurance status. Conclusions: Cessation aids are under-used across insurance categories. Advice by a healthcare provider to quit is associated with increased use of effective therapies for tobacco dependence. Systematic efforts are needed to eliminate barriers to appropriate treatment.

Most smokeless tobacco use does not cause cigarette smoking: Results from the 2000 National Household Survey on Drug Abuse.
O'Connor RJ; Kozlowski LT; Flaherty BP; Edwards BQ. *Addictive Behaviors* 30(2): 325-336, 2005. (25 refs.)
Those who either never progress from smokeless tobacco (SLT) to smoking or smoked before using SLT logically cannot have smoking caused by SLT use. The prevalence of such use permits strong inferences about the overall importance of the potential causal effects of SLT on cigarette smoking. We found that the majority of SLT ever users (66%) in the 2000 National Household Survey on Drug Abuse (NHSDA) were noncausal users. For these individuals, SLT use cannot have caused them to smoke. We also compared our results in 2000 with a similar sample in 1987, using current SLT users only. Potentially, the causal uses of SLT were in the minority and had not increased significantly over time (24% in 1987 to 29% in 2000, P>.05). Logistic models showed that, when noncausal users were removed, SLT was a minor predictor of current smoking. This is likely due to linked experimentation. We argue that that the majority of SLT use cannot cause smoking, such that SLT effects on smoking initiation are minimal at best. Policy implications of these findings are discussed.