

Supporting smoking cessation in the medical specialist practice

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ABSTRACT

Although smoking cessation reduces the cardiovascular risk of smoking, why this is so is still uncertain. Nevertheless, because they are strongly and authoritatively involved in much of the serious health damage caused by smoking, medical specialists should do all they can to support their patients in stopping. This indispensable support can be improved, however, when specialists adapt more motivational and behaviour change promoting attitudes and communicative techniques.

Reporting negative evidence can be frustrating. Van den Berkmortel *et al.*,¹ in this issue, were not able to show significant changes over time in intima-media thickness of the femoral and carotid arteries in relation to nonsmoking or smoking cessation. They had to reject the hypothesis that this parameter plays an indicative role in the explanation of the rapid reduction in cardiovascular risk after smoking cessation. Supporting smoking cessation can be frustrating as well. For this study the authors recruited 127 smokers with the intention to stop from the general population. Although they do not report on that, I presume the selection was based on the participants real and strong motivation, and on the provision of some kind of support in their quitting attempts. Nevertheless, only slightly more than a quarter of those 127 remained nicotine-free in the two-year study period. Frustrating perhaps, but such figures are to be expected in supporting smoking cessation - and actually not a bad score.² Smoking cessation is a serious and difficult endeavour, which is undertaken by many every year, but only with success by a few. Can medical specialists be of help?

They should, because smoking is seriously detrimental to health.³ About 20% of all cancer deaths worldwide are caused by smoking.⁴ Smoking causes 80 to 90% of lung cancers with a relative risk in men of over 20 and in women of over 10.⁵ Smoking is responsible for most cancers of the bladder, pancreas, oesophagus, and kidneys. Over 80% of chronic obstructive lung disease can be attributed to smoking with a relative risk in both male and female smokers of about 10. The relative risk for cardiovascular disease is about 10 in smokers aged 30 to 50 years, but this risk declines with increasing age as death rates from heart disease also rise in nonsmokers.⁶ Across all ages, about 20% of cardiovascular deaths can be attributed to smoking. However, because cardiovascular disease is so common in the population, smoking-attributable deaths from cardiovascular diseases (ischaemic heart disease, claudication, and stroke) outnumber smoking-attributable deaths from all other causes, including lung cancer. Smoking is a cause of peripheral vascular disease, cataracts, and gastric and duodenal ulcers, and contributes to Crohn's disease.⁷ Smoking increases the risk of cerebrovascular disease in a dose-response manner, for both haemorrhagic and ischaemic cerebral infarction, which occurs in conjunction with an increase in atherosclerosis of the carotid arteries.⁸ Smoking markedly accelerates atherosclerosis in the abdominal aorta and occlusive disease in its branches.⁹ Aortic aneurysm, peripheral vascular disease and renal artery stenosis are increased in smokers. Cigarette smoking is an independent risk factor in the development of atherosclerosis in the internal pudendal and penile arteries of young men with impotence.¹⁰

Numerous respiratory diseases are strongly related to cigarette smoking. Cigarette smoking is estimated to contribute to over 80% of cases of chronic obstructive pulmonary disease (COPD), and the amount and duration of cigarette smoking directly influences the progression of COPD.¹¹ Asthma and respiratory infections are not caused by tobacco smoke but are worsened by exposure to cigarette smoke.

Medical practice should provide support in smoking cessation, because health benefits strongly from cessation.¹² At all ages, the risk of ischaemic heart disease in individuals without known coronary heart disease decreases after cessation, particularly in the first two to three years.¹³ Thereafter, the rate of decline decreases, but in about ten years former smokers reach the same risk level as never-smokers. The risk for the first myocardial infarction declines quickly to reach that of never-smokers by the third or fourth year.^{14,15} For smokers who already have coronary heart disease, cessation is also very effective in reducing the risk of further acute coronary events. The risk of coronary heart disease is substantially and relatively rapidly reversible on cessation of smoking. One year after quitting, the risk of coronary heart disease decreases by 50%, and within ten years, the relative risk of dying from coronary heart disease for an ex-smoker approaches that of a never-smoker. The increased relative risk for cerebrovascular disease is lowered by smoking cessation to that of a nonsmoker by about five years.¹⁶⁻¹⁸ Smoking cessation reduces the risk of peripheral artery occlusive disease compared with continued smoking.¹⁹ Among patients with peripheral artery disease, smoking cessation improves exercise tolerance, reduces the risk of amputation after peripheral artery surgery, and increases overall survival. Both the duration of smoking and the amount smoked are significant predictors of lung function impairment. The Lung Health Study found a reduced rate of decline in lung function and fewer respiratory symptoms in those who remained quitters over the five-year duration of the trial.²⁰ The benefit was also seen in heavy smokers, older smokers and smokers with poor baseline lung function.

Can internists be of help in supporting smoking cessation? Since many smokers ask for medical help, whether or not for smoking-related diseases, and since they have relatively many contacts, they are particularly suited to do smoking cessation interventions. When delivered by medical professionals, such interventions are usually well accepted by the patients and lead to better results than when given by nonmedical personnel.²¹ Therefore, in accordance with the British and American guidelines, the *Partnership Stoppen met Roken*, a cooperation of the Ministry of Health, the *Nederlandse Huisartsenvereniging* and the *Orde van Medisch Specialisten* recently put together the Dutch Guidelines for

the Treatment of Tobacco Dependence (Draft version: CBO 2003 <http://www.cbo.nl/product/richtlijnen/folder/20021023121843/concepttabaksversl.pdf>). The Dutch guidelines see hospital outpatients as important targets for cessation support interventions, comparable with the primary care patients (p. 22). Parallel to the Minimal Intervention Strategy for Primary Physicians,²² a cardiologist version (C-MIS) and a lung specialist version (L-MIS; Wagena & Kotz in press) have been designed and tested;²³ the C-MIS was found to be effective for patients with cardiac diseases after three months. Van de Meer *et al.*²⁴ present evidence that short interventions by medical specialists are effective for COPD patients. A combination of psychological and pharmacological interventions are more effective than one of the two in isolation. However, due to lack of studies, no specific psychological interventions can be indicated. Because MIS versions for cardiologists were not proven to be effective in the long run, Van Berkel²⁵ recommends the use of more intensive interventions, including the prescription of supportive medications, with a preference for bupropion and, when registered, for nortryptilin, which attenuates the change of success.²⁶⁻²⁸ The components ask, advise, assess, assist and arrange are seen as essential and form the basis of the MIS protocols. Rice and Stead,²⁸ in their Cochrane review on nursing interventions, present evidence that these components are preferably followed by frequent telephone contacts. The concerted action of a warning specialist, possibly prescribing antismoking medication and a dedicated nurse, specialised in supporting smoking, provides a strong combination.

Although there is ample evidence for their effectiveness, the degree of effect these interventions have is limited. Professional support will double (brief advice) or triple (face to face more intensive support) the number of 'spontaneous' quitters. In hospital outpatients this means 8 to 10% successful quitters instead of 2 to 4%. Referral to a smoking cessation specialist can enhance this number to 15 to 20%.² Although the systematic application of these measures in hospital outpatient clinics will make a substantial contribution to public health and is highly cost-effective (Beleidsdocument Partnership 2004), since many persons visit yearly, the majority of those to whom the intervention is delivered will not respond. Approximately 70 to 80% of patients will be unaffected, even if given proper support.

Should this be a reason for the medical specialist not intervening in the outpatient hospital setting? Many doctors will be tempted not to intervene, but we think they should. Even if eight out of ten smokers do not respond immediately to an intervention, given the number of quitters yearly, some of them will do so, sooner or later. Furthermore, for ethical reasons medical specialists cannot refrain from raising the topic in their contacts with the patient.

Most specialists are aware of this and do raise the topic of smoking, although often not in a very structural and patient-friendly way. Patients are simply ordered to stop smoking, without expressing much trust, without distinguishing the motivational stage, and without giving real support. In the 'failing' patients this can lead to resistance and denial, in the 'failing' doctors to helplessness, reluctance, and even cynicism.

Fortunately, more adequate ways of communication are available.²⁷ Making use of the technique of *motivational interviewing*²⁸ they can, more elegantly, assess the readiness to change, promote the confidence to start changing, and take away the resistance, without this costing much extra time or energy. These techniques of communication need to be trained, however, since they are not part of the initial education of many doctors. Fortunately, there are training procedures available for medical specialists to fill in these gaps. A good example is the *cursus interactieve consultvoering (CIC)*, developed by the Medical Faculty of Radboud University Nijmegen, which is not only for smoking cessation, but also applicable for support in other lifestyle changes, such as reducing drinking, dieting, and medication compliance. The implementation of such trainings is highly recommended, therefore.

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