Conference Report

Can we have safer cigarettes?

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Cigarette consumption in Britain has dropped by 30% over the past decade. Nevertheless, the death toll among those who continue to smoke remains appallingly high, a quarter of regular smokers dying prematurely from diseases related to smoking. To try to combat this government policy has reduced by half the tar yield of cigarettes over the past 20 years. Though few doubt that this has been responsible for the halving of mortality from cancer in the early middle aged, its impact on overall mortality has been disappointing because low tar cigarettes do not appear to have had an effect on the mortality from coronary heart disease. So should we be looking for other ways to modify cigarettes to make them less dangerous or does the pursuit of the "suitably" modified cigarette detract from what ought to be our priority—namely, stopping people smoking altogether?

Such questions were the subject of uninhibited and heated discussion at a conference in the Bloomsbury Crest Hotel on 8 November. Even the title of the one day seminar, "Can we have safer cigarettes?" was provoking—especially to the antismoking lobby, to whom the concept of a safe cigarette is as plausible as safe Russian roulette.

Things started quietly enough as Dr Martin Jarvis traced the rapid demise of the plain, short, tar (30-40 mg) and nicotine (2.1 mg) filled weed of the mid 1950s to the equally rapid rise of the king size, filter tip, comparatively low tar (<20 mg), low nicotine (<1.7 mg) cigarette of the late '60s and early '70s. Since 1972, tar yields have continued to fall, and the sales weighted average is now about 15 mg, with a level of 13 mg predicted for 1987. Nicotine yields have also declined but more slowly, levelling out at about 1.3 mg. Thus the ratio of tar to nicotine has fallen to a fifth of what it was 10 years ago.

These modifications have primarily been achieved by filtration and dilution of the smoke stream, with variations in the properties of the filter, wrapping paper, and types of tobacco permitting endless permutations in the delivery of the various constituents of tobacco smoke. By and large, smokers have gone along with these changes but their cooperation has stopped short of a widespread acceptance of low tar cigarettes, whose sales have been static at 15% of the market. Middle to low tar brands are definitely more popular, although the government's definition of high, medium, medium to low, and low tar has altered as tar yields have declined. These changing trends have bedevilled the efforts of epidemiologists seeking to interpret the results of long term studies.

Coronary heart disease

Although the mortality from coronary heart disease has not fallen, there is no evidence, said Professor Nick Wald, that it has increased, and he went on to pinpoint the obvious 64 dollar question: which constituent in tobacco smoke causes coronary heart disease? In his view there are no substantial grounds to suspect nicotine, but the case against carbon monoxide is quite convincing. Dr Tim Higgenbottom suggested that classic epi-

demiological studies should be abandoned in favour of a comprehensive analysis of the individual constituents (well over 2000) of tobacco smoke, their distribution within the lung, and their interaction with lung tissue. Such research has already shown that free radicals contribute to the toxicity of cigarette smoke and that lipophilic constituents reduce the surface tension of surfactant. The pathological importance of the nitrogen oxides, whose concentrations vary enormously from one brand of cigarette to the next, must also be defined.

Returning to the major bogey in tobacco smoke, Dr Michael Russell emphasised the need to continue along the low tar path, but said that it was a disgrace that we do not know more about the qualitative nature of the tar in our cigarettes, which in his opinion has been decreasing in carcinogenicity over recent years. Not everyone agreed, but most were behind him when he said that there was no merit in pushing for further reductions in nicotine yields. Firstly, this was unlikely to have any impact on deaths from coronary heart disease, and, secondly, it doesn't work because patients simply change their smoking habits and "compensate" to maintain satisfaction. The only logical course therefore was to press for a continued reduction in tar but maintain nicotine yields at about 1.3 mg per cigarette.

Thus there was no shortage of ideas on what research should be done and little disagreement on how cigarettes should be modified. There was, however, plenty of argument on whether we should concentrate on pursuing the ideally modified cigarette or on stopping people smoking altogether. Those wholeheartedly in favour of the latter were dismissed as unrealistic idealists and Mr Richard Peto's voice finally held sway. Our priority must be to stop people smoking but, given that smoking continues to claim so many lives and that consumption is increasing worldwide, it is essential to adopt policies which ensure that those cigarettes that are smoked are as safe as possible. In his view this entails getting tar yields below 10 mg. He agreed that nicotine was unlikely to be harmful but said that we need to conduct controlled studies in which nicotine yields were varied and the nature of the compensation process was explored. At the same time the public needs to know not only that cigarettes—all cigarettes—are dangerous, but exactly how dangerous.

Speaking on advice to the individual, Dr Mac Cochrane's first counsel was to tell them to stop smoking and he described all smokers as nicotine addicts. There was some cheer, however, for the hardened smoker, who may actually regain some of his lost respiratory function by changing to a lower tar brand, taking fewer puffs from each cigarette, and above all by reducing consumption.

On the issue of smoking policies there was broad agreement that the government should adopt a low tar, medium nicotine policy (in line with current trends) and do a lot more to stop people smoking. The reasons it does not do so are obvious but the medical profession must continue to push for an increase in the price of cigarettes and a ban on all cigarette advertising—measures which are known to reduce consumption. Mr Peto suggested that the government could, as a compromise, set a ceiling at 10 mg of tar and that only brands which yielded less than this should be promoted. David Simpson from Action on Smoking and Health said that the government should ensure that any further measures to modify the composition of cigarettes were enforced by legislative control and kept well out of the tobacco companies' arena.