

## Smoke free hospitals

*An achievable objective bringing benefits for patients and staff*

The Royal Victoria Hospital in Belfast has often been in the media spotlight, attracting praise for the way it responded to three decades of intercommunal violence in Northern Ireland. Some recent news coverage was not, however, quite so positive. The hospital is nearing completion of a major new building development, and the BBC revealed how the hospital's management had decided to establish seven smoking rooms for patients and staff in it at a cost of £500 000 (\$787 000; €723 000).<sup>1</sup> The decision immediately provoked condemnation from many sources. Dr Joe Hendron, a member of the Northern Ireland assembly and also a local general practitioner, argued that the move sent out the wrong signal at a time when health services should be encouraging people to stop smoking and Andrew Dougal, of the Northern Ireland Chest, Heart, and Stroke Association condemned the "abject failure" of the hospital to persuade people to quit smoking. Hospital managers have, however, stuck to their decision, arguing that they are simply accepting reality as staff and patients "don't leave their cigarettes and matches at home when they come here."

The hospital's decision contrasts with the growing frequency of total bans on smoking in health facilities. Since the beginning of 1994 the United States joint commission on accreditation of healthcare organisations has required that accredited hospitals be smoke free, and a survey conducted soon afterwards showed that over 96% of hospitals had complied with the standard, with over 40% going further than required by it.<sup>2</sup> Elsewhere, many individual hospitals have acted on their own initiative or in association with groups such as the international network towards smoke free hospitals or the European network for smoke free hospitals.

Two main considerations are involved. One is the importance of sending out a consistent message. Many of the elements of a comprehensive tobacco policy are at last falling into place in the United Kingdom, with a ban on tobacco advertising, larger warnings on cigarette packs, and greater support for people who wish to quit. One key area where action is still needed is a ban on smoking in public places, as recently urged by the British Medical Association.<sup>3</sup> The value of hospitals making a clear statement on public smoking can be seen from a recent systematic review showing that total workplace bans would have an effect equivalent to an almost doubling of the price of cigarettes in the United Kingdom.<sup>4</sup>

The second consideration is protection of other patients and staff from exposure to second hand smoke, the dangers of which have long been obscured by the

tobacco industry. Other factors include a reduction in the risk of fires and in cleaning costs.

Some will argue that bans on smoking in hospitals will not work because of opposition by staff or patients. Many health professionals have experienced abuse when challenging addicted smokers who ignore no smoking signs, and preventing smoking by patients experiencing nicotine withdrawal symptoms is especially difficult. However, a Cochrane review found that carefully planned and resourced multicomponent strategies are effective in reducing smoking in public places.<sup>5</sup> A set of case studies undertaken by the Health Development Agency confirms that smoking bans can work in NHS hospitals if designed and implemented appropriately.<sup>6</sup>

Hospitals seeking practical guidance on implementing a comprehensive tobacco control policy can find guidance in another document from the Health Development Agency,<sup>7</sup> or, in most European languages, from the European network for smoke free hospitals. In brief, one should start with a review of existing policies, focusing on implementation and gaps in adherence, followed by preparation for and then implementation of appropriate changes, establishment of monitoring systems, and implementation of a continuing process of audit. Critical success factors include building consensus among all staff, whose support is often underestimated by management, and integrating the smoking ban within other hospital policies.

But should hospitals go further and actively help patients to quit either before coming into hospital or during and after their stay? Smoking cessation is a key priority in the English national service framework for coronary heart disease and in similar documents in other parts of the United Kingdom, and the evidence brought together by the Health Development Agency shows that it can make an important contribution to the effectiveness of smoking bans. The potential benefits are considerable. Continuing to smoke is an important risk factor for postoperative chest infection,<sup>8</sup> wound breakdown,<sup>9</sup> admission to an intensive care unit,<sup>8</sup> and in-hospital mortality.<sup>8</sup> Smoking cessation after surgery is an important independent predictor of survival and risk of reoperation among patients undergoing coronary bypass surgery.<sup>10</sup>

Intervention is effective both before and during hospitalisation. In a randomised controlled trial of smoking intervention using counselling and nicotine replacement among patients six to eight weeks before surgery, nearly 90% of those in the intervention group either

ceased or reduced smoking before surgery compared with less than 10% of those in the control group.<sup>11</sup> The intervention group was much less likely to experience postoperative complications, especially wound healing and cardiovascular complications, and to need secondary surgery. A Cochrane review found that intensive behavioural interventions with patients admitted to hospital were associated with higher quit rates when linked to follow up contact for at least a month.<sup>12</sup>

Given this evidence, it is arguable that resources expended on smoking rooms might be better used to fund a concerted effort to implement a smoking ban and to expand smoking cessation activities. Hopefully other hospitals facing a similar situation will act differently in the future.

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## Comparing cannabis with tobacco

*Smoking cannabis, like smoking tobacco, can be a major public health hazard*

Britain now has 13 million tobacco smokers. This number has been steadily decreasing due to public awareness of the harm caused by tobacco smoking. At the same time the number of cannabis smokers is increasing. Between 1999 and 2001, the number of 14-15 year olds who had tried cannabis rose from 19% to 29% in boys and 18% to 25% in girls, and a Home Office document estimates that 3.2 million people in Britain smoke cannabis.<sup>1 2</sup> However, the harmful effects of smoking cannabis are widely known and have recently been highlighted.<sup>3 4</sup> Although the active ingredients of the cannabis plant differ from those of the tobacco plant, each produces about 4000 chemicals when smoked and these are largely identical. Although cannabis cigarettes are smoked less frequently than nicotine cigarettes, their mode of inhalation is very different. Compared with smoking tobacco, smoking cannabis entails a two thirds larger puff volume, a one third larger inhaled volume, a fourfold longer time holding the breath, and a fivefold increase in concentrations of carboxyhaemoglobin.<sup>5</sup> The products of combustion from cannabis are thus retained to a much higher degree. How is this likely to translate into adverse effects on health?

We already know that regular use of cannabis is associated with an increased incidence of mental illnesses, most notably schizophrenia and depression,<sup>4</sup> but it is also worth examining its potential to cause other illnesses, especially those of the heart and respiratory system.

At present, there is an understandable dearth of epidemiological evidence of cardiopulmonary harm from cannabis, because its use is a relatively new phenomenon and its potency is changing. The amount of the main active constituent, tetrahydrocannabinol (THC), in cannabis has increased from about 0.5% 20 years ago to nearer 5% at present in Britain, whereas "Nederweed" (the variety smoked in the Netherlands) has an average of 10-11% tetrahydrocannabinol. At the same time little study has been undertaken of any concomitant change in the content of tar. Case-control studies are difficult to perform since cannabis cigarettes do not come in standard sizes, which makes dose-response relations difficult to establish. Furthermore, most users of cannabis also smoke tobacco, which makes it difficult to dissect out individual risks. As with tobacco, there will be a latent period between the onset of smoking and the development of lung damage, cardiovascular disease, or malignant change.

Tobacco smoking is responsible for 120 000 excess deaths each year in Britain, 46 000 from cancers, 34 000 from chronic respiratory disorders, and 40 000 from diseases of the heart and circulation. However, there are indications that smoked cannabis may cause similar effects to smoking tobacco, with many of them appearing at a younger age. Smoking cannabis causes chronic bronchitis, emphysema, and other lung disorders, which were recently summarised in a review released by the British Lung Foundation.<sup>3</sup> A striking feature of cannabis smoking is that it is associated with

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