The Lung Cancer Epidemic

PUBLIC HEALTH PROGRAMS were developed to solve serious community health problems, and epidemics have always been among the most pressing of those. In place of the vanished tuberculosis epidemic of the last century is the current lung cancer epidemic. This disease is not directly transmissible from one person to the next except insofar as smoking behavior, its major recognized causal agent, is a model for mimicry by one's companions.

Lung cancer deaths have now surpassed breast cancer deaths as the leading cancer mortality in women. This increase is unquestionably the result of an increasing proportion of the female population that smokes. This is particularly true and problematic with teenaged women.

Despite the protestations of the tobacco industry, cigarette smoking is recognized as the most important cause of lung cancer, though it acts as a tumor promoter rather than a tumor initiator. Stopping smoking has been shown to diminish the risk of lung cancer mortality as the period of abstinence lengthens after the first year.

In conjunction with smoking, workplace exposures to carcinogens (asbestos, bischloromethyl ether, chromates, nickel carbonyl and so forth) are important causes of lung cancer. Urban airborne pollutants also contribute to risk but to a much lesser degree. A sequel to the recent wave of home-insulation improvement has been the indoor accumulation of radon gas whose α-emitting daughter products are carcinogenic when inhaled. Though controversial, there is some suggestion that exposure to cigarette smoke may be involved in an increased lung cancer risk for a nonsmoker (passive smoking).

Although in some states the annual increase of cases of lung cancer seems to have peaked, the clearly excessive risks of lung cancer occurrence remain. More effective documentation and control of high-risk circumstances are needed to achieve significant levels of prevention. Each state needs to follow the US Surgeon General's lead, declare lung cancer to be an epidemic and allocate resources for epidemiologic surveillance and control. Prevention is the ultimate form of ethical medical cost control.

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Nonmedicinal Treatment of Hypertension

AS A RESULT of increased consumer awareness of the risks of hypertension and increased physician awareness of the benefits of early detection and treatment, primary care clinicians are more frequently encountering persons with mild hypertension (diastolic, 90 to 104 mm of mercury). Rather than immediately prescribing drugs, it may be preferable to negotiate with patients various life-style changes that have been shown to lower blood pressure. The possibility of avoiding medication is a strong incentive for many people, thereby increasing patient compliance.

The nonmedicinal approach to treating hypertension takes into account nutrition, weight, exercise and stress management.

Nutrition

Patients with hypertension need to be educated about avoiding salt and, more important, salty foods. Although we now know that not all persons are salt-sensitive, the excessively high average daily American intake of salt, combined with the lack of an accurate means of predicting who is salt-sensitive, justifies this recommendation for all patients with hypertension. Giving patients a handout listing the salt content of various foods saves physicians time and serves as a valuable reference for a patient. If hyperlipidemia is detected, then further nutritional counseling about avoiding high-cholesterol foods (organ and red meats, eggs, whole milk dairy products and shellfish) or high triglyceride foods (sugar, sweets and alcohol) with the help of additional patient handouts or a nutritionist referral would be necessary.

Weight

There is a direct correlation between obesity and hypertension. Although a goal is set to achieve and maintain a realistic body weight, it is surprising how even a small loss of 7 to 9 kg (15 to 20 lb) can lower a mildly elevated blood pressure to an acceptable level. The loss is best achieved slowly as the person adopts a more healthy diet rich in fiber and complex carbohydrates and low in fat and sugar and embarks on a regular exercise program.

Exercise

Daily sustained aerobic exercise results in lower blood pressure, lower serum levels of cholesterol and triglycerides, a slower resting heart rate indicative of a more efficient cardiovascular system, weight loss from both increased caloric expenditure and heightened metabolic rate and lowered stress levels. Recommending books like *Fit or Fat* by Covert Bailey provides a patient with guidelines for the length of time required for various aerobic activities and their desired maximum heart rates based on their general state of health.

Stress Management

Attempts to cope with today's highly technologic, impersonal and frustrating society have caused an elevated blood pressure in many people under high adrenergic stimulation. Because many people have difficulty identifying or acknowledging their stress, this aspect of nonmedical treatment of hypertension may require more in-depth discussion at subsequent visits. Nonetheless, a brief general discussion of how stress raises blood pressure, examples of various stress inducers (such as work, interpersonal relationships, finances) and a list of activities or techniques designed to lower stress are essential. A patient handout is again very helpful, listing such relaxing possibilities as hobbies, aerobic exercise, breathing exercises, biofeedback, meditation, music and reading, among others.

These four nonmedicinal treatments of hypertension should also be used with cases of moderate and severe hypertension. Obviously, people with higher blood pressures re-