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## The hypertensive patient: 2. Finding and linking to clinical care

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Both population surveys and shopping centre screening programs have suggested that a substantial portion of the hypertensive population in Canada goes undetected or untreated. Of course, these "one-shot" measurements of casual blood pressure overestimate the magnitude of the hypertension problem because from one third to one half of individuals found to be hypertensive on a first examination will be found to have normal blood pressure on a repeat examination.<sup>1</sup> None the less, these and other data have led the hypertension task forces and committees\* to conclude that a large number of Canadians have undetected or untreated hypertension, which, unless controlled, will continue to add to an already enormous burden of unnecessary disability and untimely death.

In an effort to apply the law of "mass action" to the hypertension problem, many editorialists, professional groups and voluntary health organizations have suggested that an attempt to detect hypertension should be made at every opportunity — in shopping centres, dentists' offices, pharmacies, emergency rooms and so forth. However, in their recommendations the Canadian task forces either rejected or substantially restricted this approach for the fol-

lowing reasons.

First, a review of the published data on shopping centre screening programs revealed that, although the programs were extremely well organized and staffed and were carried out for as long as 6 months,<sup>2,3</sup> less than 10% of the local adult population were screened.

Second, it has been shown that most of the individuals who volunteer to have their blood pressure checked in such programs have already undergone a recent examination. Such was the case in the shopping centre screening program in Hamilton; 75% of the individuals who were screened had already had their blood pressure checked within the previous 2 years.<sup>2</sup>

Third, although hypertensive individuals may be easily detected, it is often difficult to successfully link them to a source of clinical care. Linkage from shopping centre screening programs may be successful, but linkage from other detection procedures is usually unsatisfactory. For example, following a detection program in an industrial setting, only 4% of the hypertensive individuals detected went to see their physician, although they all were urged to do so. A vigorous attempt to correct this situation raised the figure to only 20%.<sup>2</sup>

Fourth, and as a result of the foregoing, the community screening programs tend to have little impact on the proportion of hypertensive persons who are treated, much less have their blood pressure controlled.

In the shopping centre screening program in Hamilton, for example, it was estimated that the proportion of hypertensive individuals undergoing therapy rose by only 12%.<sup>2</sup>

Thus, most of the hypertensive individuals identified at these community-based screening programs are only labelled as such and never treated; hence the fifth concern — the labelling of symptomless hypertensive individuals.

Recent research in both Canada and the United States has shown that the labelling of hypertensive individuals has short-term disadvantages. The Harris Poll community survey of hypertension revealed that persons who stated they had hypertension missed twice as many days from work as persons who were either normotensive or not aware that they had hypertension.<sup>4</sup> Furthermore, in the United States Health and Nutrition Examination Survey the psychologic well-being and reported physical health were significantly poorer among persons who were aware that they had hypertension, regardless of whether the hypertension was being treated or controlled (M. Monk: personal communication, 1977). Also, absenteeism among Canadian steelworkers increased substantially after workers were labelled as having hypertension, regardless of whether they were being treated.<sup>3</sup> The short-term disadvantages resulting from the detection and labelling of hypertensive individuals cannot be taken lightly, especially when the subsequent

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\*Details pertaining to the hypertension task forces and committees may be found in the first of this series of articles on hypertension, published June 9, 1979. The entire series will appear in consecutive issues of the Journal.

stages in hypertension control are not carried out by the individuals performing the screening.

The sixth basis for the recommendations of the task forces lies in the high frequency with which Canadians visit their family physician. The International Collaborative Study of Medical Care Utilization discovered that three quarters of Canadians had seen a physician within the last year.<sup>5</sup> Most of the visits were to primary-care institutions, settings that have two distinct advantages. First, if hypertension is detected, linkage to a source of clinical care has already occurred and the hypertensive individual is in the appropriate setting for assessment, treatment and follow-up. Second, the hypertensive individual detected in a primary-care setting is likely to be labelled hypertensive only if the decision has been made to treat and follow up the individual. Therefore, when hypertension is detected in primary care, the undesirable short-term effects of labelling will be overshadowed by the long-term benefits of therapy. The feasibility of a primary-care setting for the detection of hypertension has recently been confirmed. A general practitioner in Ontario tripled his hypertension case-finding rate and confirmed the expected proportion of his patients who had hypertension by simply placing a notice on his office wall that stated that every adult must undergo blood pressure measurement at every visit.<sup>6</sup> Furthermore, the responsibility for this measurement can be delegated to any of the practice personnel.

What is the most effective strategy for ensuring that every adult attending a primary-care practice has his or her blood pressure checked at appropriate intervals? Practices with age/sex registries or other means for "flagging" patients' charts have built-in mechanisms for the periodic assessment of blood pressure. However, an alternative method must be used. An informal survey of primary-care clinicians, performed by the hypertension task forces and committees, indicated that the most practical method was

simply to institute the measurement of blood pressure as part of every adult patient's visit. On the basis of input from these primary-care clinicians the Canadian task forces and committees made the following recommendations:

- The preferred site for hypertension detection is a primary-care setting.

- Every primary-care practice should measure the blood pressure of every adult at every contact; the responsibility for the measurement can be delegated to any of the practice personnel.

- High priority should be given to the identification of strategies to encourage and reward detection in primary care.

- Community-based hypertension detection programs should be focused on public and professional education and motivation rather than on blood pressure screening.

- Periodic surveys should be carried out on random population samples to determine progress in the elimination of untreated and uncontrolled hypertension.

- Hypertension detection should be attempted only when linkage to a source of clinical care is guaranteed.

- Priority should be given to the evaluation of methods for guaranteeing linkage to a source of clinical care from other potential detection methods (e.g., encounters with public health and social agencies, and in emergency departments and employee health programs, and contacts with other health professionals).

These conclusions, which are based upon recent findings in Canada and on concerns that have been echoed in the United States,<sup>7</sup> indicate that a change is required in the traditional attitudes towards community screening programs.

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## BOOKS

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This list is an acknowledgement of books received. It does not preclude review at a later date.

**BIOFEEDBACK** — Principles and Practice for Clinicians. Edited by John V. Basmajian. 282 pp. The Williams & Wilkins Company, Baltimore; the Macmillan Company of Canada Limited, Toronto, 1979. \$21.50. ISBN 0-683-03577-0

**A COLOR ATLAS OF SECTIONAL ANATOMY**. E.A. Lyons. 317 pp. Illust. The C.V. Mosby Company, Saint Louis, 1978. \$173.50. ISBN 0-8016-3052-5

**CORONARY HEART DISEASE**. 3rd International Symposium, Frankfurt, February 1978. Edited by Martin Kaltenbach, Paul Lichtlen, Raphael Balcon and others. 346 pp. Illust. Georg Thieme Publishers, Stuttgart, Germany, 1978. Price not stated. ISBN 3-13-567901-2

**ELECTROTHERAPEUTIC SLEEP AND ELECTROANESTHESIA**. Volume IV. Proceedings of the Fourth International Symposium, Paris, France, 18-22 March 1975. M. Cara, chairman. A. Limoge, president of organizing committee. C. Debras, secretary general. 222 pp. Illust. Masson, Paris, 1978. Price not stated, paperbound. ISBN 2-225-59092-3

**HANDBOOK OF GENERAL HOSPITAL PSYCHIATRY**. Massachusetts General Hospital. Edited by Thomas P. Hackett and Ned H. Cassem. 593 pp. Illust. The C.V. Mosby Company, Saint Louis, 1978. \$19, paperbound. ISBN 0-8016-0931-3

**HUMANHOOD: ESSAYS IN BIOMEDICAL ETHICS**. Joseph Fletcher. 204 pp. Illust. Prometheus Books, Buffalo, New York, 1979. \$14.95. ISBN 0-87975-112-6

*continued on page 1504*