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"DOWN WITH HIGH BLOOD PRESSURE," A THEME WITH A WARNING FOR PHYSICIANS[1, 2]

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Hypertension, the subject of World Health Day 1978, is a serious health problem that, once detected, can be effectively controlled. This article reviews hypertension detection and treatment patterns in Argentina, the United Kingdom, and the United States and suggests ways these patterns might be improved.

Hypertension and Health

The World Health Organization selected arterial hypertension as the topic for World Health Day, 7 April 1978, and publicized the slogan "Down with high blood pressure!" The choice of this theme was not casual, but was based on the fact that mortality figures in the developed countries (*1, 2*), and in most developing countries as well, (*3*) show cardiovascular disease to be the leading cause of death. Arterial hypertension—together with various complications including cerebrovascular accidents, cardiac insufficiency, and renal insufficiency—contribute to maintain these high rates of cardiovascular mortality.

Thus, it is clear that public health programs must make control of arterial hypertension a priority goal if the risks of sickness, disability, and death from this condition are to be reduced. It is also clear that hypertension control activities (mainly performed during medical visits) do reduce the demands on hospital inpatient facilities and so indirectly improve both the quantity and quality of work that can be accomplished by those facilities. Seen either from the viewpoint of reduced medical costs (*4*) or in terms of patient workdays gained as well as the impact that hospitalization has on the family and community, this is an important consideration.

Detection and Treatment of Hypertension

It has been argued—and with good reason—that the greatest problem of hypertensive disease is the absence of symptoms prompting medical consultation. For this reason, part of a hypertension control program's strategy is based on making the population realize the importance of getting periodic medical checkups (*4*).

Within this context, it is also useful to take a look at what happens to patients who enter a country's health system for reasons unrelated to hypertension, vis-à-vis examination for this problem, in order to see whether appropriate medical services are being supplied. Some examples of investigations that have provided useful data on this subject in the United Kingdom, the United States, and Argentina are as follows:

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The United Kingdom

In 1977 Heller and Rose reported the results of studies made in England to evaluate the frequency with which physicians in private practice (*6*) and those in general hospitals (*5*) determined their patients' levels of arterial pressure. This research showed that neither private physicians' offices nor general hospitals were functioning as effective centers for detection of arterial hypertension. At the London hospitals studied, only 1,027 of 1,784 inpatients (58 per cent) had their arterial blood pressure taken. And although arterial hypertension had been detected in 167 (16 per cent) of those tested, only 18 of these patients (12 per cent of those found with the problem) were actually treated for hypertension (*5*).

The findings based on private practice clinical histories were similar. In a random sample of 669 patients visiting 15 private practitioners (for whatever reason) in the London area over a period of five years, only 24 per cent had their arterial pressure taken; of the 74 patients found to be hypertensive, only 28 (38 per cent) were treated for hypertension.

Also, a study of emergency room clinical records in Great Britain found that 73 per cent of the inpatients admitted through the emergency room had their arterial pressure taken, but that this was done for only 45 per cent of the patients who visited the emergency room but were not hospitalized (*5*).

In addition, a 1973 report evaluating the quality of medical care in Scotland (*7*) found that only 9 to 15 per cent of one group of physicians were using the sphygmomanometer in their practices. Further research in Scotland, published in 1976 (*8*), indicated that arterial pressure was being measured in about 40 per cent of the patients 45 to 64 years of age who consulted private physicians.

The United States

In a similar manner, a review of clinical histories in the United States (*9*) has shown that arterial blood pressure levels are not determined in a routine, systematic manner. In this study, it was found that arterial blood pressure readings appeared in 74 per cent of inpatient clinical histories, 43 per cent of outpatient clinical histories, and 14 per cent of emergency room patient histories.

The frequency with which U.S. physicians recommend anti-hypertensive treatment has also been found to vary, even in cases where high levels of arterial pressure are detected. Thus, Frohlich et al. (*9*) found that anti-hypertensive treatment was prescribed for fewer than 5 per cent of 108 patients whose clinical histories showed arterial pressures higher than 160/100 mm Hg, while Wilber and Gordon-Barrow (*1*) found that anti-hypertensive treatment was recommended to 70 per cent of a group of patients found to have high arterial pressures.

Argentina

In Argentina, an evaluation was made of 4,405 outpatient histories at a Buenos Aires hospital. The patients in question had been examined at hospital outpatient clinics devoted to various medical specialties. In all, the study covered a total of 18,632 consultations conducted from August 1976 to December 1977; 14,160 of these (76 per cent) were repeat consultations.

The study found that the patient's arterial pressure had been measured in 30 per cent (1,341) of the first-time consultations and 20 per cent (2,832) of the subsequent consultations. Arterial hypertension was detected in 12 per cent (500) of the total number of consultations, and some type of medical action relating to hypertension

(referral or treatment) was noted in the records of 12 per cent (60) of the patients. No significant differences were observed between the proportion of hypertensives referred or treated on initial consultation and the proportion referred or treated on subsequent consultations. The overall proportion of hypertensives referred or treated (12 per cent) was consistent with the values (10-15 per cent) reported by a number of studies carried out among the general population (*10*).

If the arterial pressure of every patient had been taken during the patient's first visit, assuming the prevalence of hypertension remained constant, then 536 cases of hypertension would have been detected; this is 70 per cent more than the number of cases actually found. Just as serious as this failure to detect hypertension was the failure to offer effective treatment. As far as is known, only 35 of the 500 diagnosed hypertensives were given treatment or referred to special services, which means that 465 hypertensive patients (93 per cent) were lost to effective medical control.

Conclusions

These investigations demonstrate that even when appropriate resources (a physician and a sphygmomanometer) are available, and even when the patients involved have consulted the health system, arterial hypertension (a biologically important diagnostic variable) is not being measured systematically, nor are the findings of arterial hypertension being controlled efficiently or confirmed by subsequent examination. Furthermore, the physician often applies a number of more sophisticated diagnostic examinations while omitting this highly sensitive and specific instrumental test.

Because of the "silent" nature of hypertensive disease, the battle against it is being waged through efforts (such as those cited in references *1-4* and *10*) to screen the supposedly healthy population, together with measures designed to provide continuing medical education and medical audit. In addition, advantage should be taken of the opportunity to screen people admitted to hospitals—where the patient, physician, and sphygmomanometer come together within the framework of the doctor-patient relationship.

Within this context it is worth noting that a person entering a hospital is a person worried about his health. This fact creates special conditions encouraging changes in behavior, attitudes, and beliefs that are required for the health education process to succeed. The patient's presence in the hospital also makes it possible to apply treatments currently available for the effective control of arterial hypertension.

In addition, the hospital is a medical training center. Accelerated changes in medical knowledge make it necessary to apply methods of continuing medical education and review in the hospital that will enable the physician to acquire new knowledge and, more important, to use such knowledge effectively in patient care. This specific medical education and review process should direct special attention to the hypertension problem, since countering this "silent" enemy requires that the physician first unmask it and then remain sufficiently aware of it to procure proper control.

SUMMARY

Hypertension and its complications—the theme of World Health Day 1978—cause heavy mortality in developed and developing countries alike. Nevertheless, physicians often fail to conduct the routine blood pressure tests and follow-up measures needed to detect this "silent"

enemy and bring it under control. The foregoing article reviews hypertension detection and control patterns observed in three countries (Argentina, the United Kingdom, and the United States) and describes some of the preventive measures needed to further reduce the impact of the disease.

REFERENCES

(*1*) Wilber, J. A., and J. Gordon-Barrow. Hypertension, a community problem. *Am J Med* 52:653-663, 1972.

(*2*) Christmas, B. W., and A. S. Turner. Prevalence of high blood pressure treated and untreated in an urban adult New Zealand population: Napier, 1973. *New Zealand Med J* 86:419-423, 1977.

(*3*) Akinkugbe, O. O., and E. Bertrand. *Hypertension in Africa.* Literamed Publications Nigeria Ltd.; Lagos, Nigeria, 1975.

(*4*) Stamler, J., R. Stamler, W. F. Riedlinger, G. Algera, and R. H. Roberts. Hypertension screening of 1 million Americans: Community hypertension evaluation clinic program, 1973 through 1975. *JAMA* 235:2299-2306, 1975.

(*5*) Heller, R. F., and G. Rose. Current management of hypertension in hospitals. *Br Med J* 1:1441-1442, 1977.

(*6*) Heller, R. F., and G. Rose. Current management of hypertension in general practice. *Br Med J* 1:1442-1444, 1977.

(*7*) Buchaw, I. C., and I. M. Richardson. *Time Study of Consultations in General Practice.* Scottish Health Service Studies, No. 27. Scottish Home and Health Dept., Edinburg, 1973.

(*8*) Heller, R. F. Doctoral dissertation. University of London, England, 1976.

(*9*) Frohlich, E. D., C. Emmott, J. E. Hammarsten, W. M. Linehan, D. Pollack, and A. W. Horsley. Evaluation of the initial care of hypertensive patients. *JAMA* 218:1036-1038, 1971.

(*10*) World Health Organization. *Hypertension and Stroke Control in the Community.* Nonserial publication. Geneva, 1976.

THE WORLD NEEDS MANY MORE NURSES*

The world needs many more nurses than the estimated 4 million now in action throughout the world, writes Dr. Halfdan Mahler, Director-General of the World Health Organization, in the December issue of the magazine *World Health*. Nursing auxiliaries, who are estimated now at about twice the number of qualified nurses, are also in demand.

Pointing out that nursing, like medicine, has for far too many years been predominantly oriented to meeting the needs of the privileged few, Dr. Mahler said that only 15 per cent of all qualified nurses work in developing countries where 66 per cent of the world's population live. The urgent health problems of the majority of the people relate to poverty, infection, malnutrition and undernutrition, the lack of potable water, and multiple environmental hazards. He emphasized that "if the needs of communities are to be met, the ranks of the health workers, including nursing and medical personnel, will need to consist predominantly of people who genuinely care about the health and welfare of impoverished communities, who want to help such communities, who are willing to learn what has to be done, and who can not only do it, but do it without dependence on sophisticated and costly technology."

*WHO press release, 3 January 1979.