

# Helping the Hypertensive Patient to Help Himself

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The control of blood pressure in patients with hypertension is an important challenge in everyday medical practice. It can do much to reduce complications, but too often we fall short of our therapeutic goals. Much more can be done to help our patients help themselves if physicians, along with their paramedical staffs and their patients, make the effort. The results are gratifying in terms of motivation and successful long-term control of the blood pressure and the risks associated with hypertension. This paper outlines objectives and practical approaches to patient education and self-care of this common medical problem.

Chronic diseases, such as hypertension and diabetes, are real challenges to the family physician and true tests of his ability to carry out his mission of full care for the patient and his family. The patient, and to a lesser extent his family, also have responsibilities in this long-term "caring" situation. Our vocabulary fails to recognize this partnership properly — thus, we speak of "managing" or "writing orders" as though we were in a factory.

The physician will do well to reflect on how he would want to be "managed" or "ordered" if he were the patient, how he would see the physician-patient relationship with hypertension if his wife were the patient, and how he would see his children avoiding this same problem of hypertension given their heredity.

## Objectives

It will help to develop objectives for the physician-patient team, while at the same time recognizing that physicians are all different and each patient is different from the next. Although all are individuals, there are nevertheless some classifications that can be employed and principles that can be followed. We all do these things, but few of us do them well enough. Six objectives are recommended, together with some approaches which we have found useful.

*Objective #1. The patient should have an understanding of the disease of hypertension, what causes it, how it is detected, and what it means in his long-term health.*

We tell the patient that hypertension is a disease mainly of regulation and compare a "barostat" and the pressure-regulating reflexes with a temperature-regulating "thermostat." The patient should learn that the precise cause, if there is one or several, is elusive and if he responds to therapy promptly, is unlikely to be found even though exhaustive and exhausting tests are done. In essential hypertension, heredity and probably salt intake and obesity play major roles. Detection of the disease is as simple as taking the



blood pressure, but the physician must check further on the target organs of the disease — the heart, the brain, the kidneys, the blood vessels. Left untreated, hypertension will shorten the length of life and lead to complications, especially in the heart and brain.<sup>1</sup> Yet hypertension is not to be feared unduly because treatment is generally simple and remarkably effective, if the patient stays on treatment.

*Objective #2. The patient should understand that his treatment plan will call for frequent visits especially at first, and that there are step-wise increments in types of drugs and their dosages. However, the eventual aim is to employ the smallest amount of medication that controls the pressure.*

We have found that it is more successful to have frequent visits early on and gradually to space them out as the patient shows greater understanding. Psychologically, the opposite approach is much more worrisome to him. This gradualism affords us the opportunity to teach him about the drug complications, side effects<sup>2</sup> and interactions (most notably the tricyclic anti-depressants and guanethidine, but also such frequently used drugs as aspirin and a uricosuric such as probenecid). We try to listen to the

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patient and allow him to be in on the decision-making process if he seems to want to be involved. Sometimes he will tell us he took a drug and it "didn't work." This gives us a chance to tell him about dosages, frequency of administration, interactions of drugs (especially the need for diuretics if he has taken methyldopa or propranolol without them), and onset of therapeutic effect (such as with reserpine which involves delay in full effect).

*Objective #3. The patient and physician should aim at full compliance or at least at honesty with each other.*

We explain to the patient that the most common cause of failure of treatment is forgetting to take the medicines, especially when the medicines may produce symptoms and the disease has not.

The patient can help by: (1) understanding the need for drugs; (2) knowing what side effects may be expected; (3) taking drugs at the best "reminder time," usually with a meal; (4) if possible, getting someone to help keep track of drugs; (5) leaving the pills in their regular containers with labels on them and bringing them in at each follow-up visit; and (6) laying out the pills each night for the following day in small, colored plastic boxes. Such inexpensive containers are readily obtainable at a notions counter in a department store and each may be marked for the appropriate time when the pill should be taken.

The doctor and his staff can help by: (1) keeping the regimen simple; (2) seeing the patient frequently; (3) doing pill counts, generally with the patient in the room; and (4) keeping close tab on the patient.

*Objective #4. The doctor and his staff should help the patient to achieve weight control and reduced salt intake.*

It is a universal finding that the blood pressure is far easier to "control" than is the weight. Therefore, the physician must not allow weight control failure to cause guilt feelings that will prevent the patient from keeping his appointments because he "gained" instead of "losing." We find it very helpful to work closely with our dietician or nurse on this — they can cajole and motivate the patient better than the physician, and with less hostility or "feeling ashamed" on the patient's part.

Salt intake can be effectively monitored by 24-hour urine salt measurements. This test can be done monthly or so and is not very expensive. It may be an inconvenience to the patient, but has psychological benefits in encouraging adherence to a program just by the remembering to collect urine for 24 hours. Side benefits of this collection are measuring of creatinine clearance and proteinuria. Frequently we find that patients are eating and excreting 10, 15, or even 20 gm of salt daily while unaware of their liking for it. If moderate salt limitation is encouraged (5 or 6 gm a day are recommended) the only measure of adherence is the 24-hour urine collection. We explain that the diuretics will "work better" if the patient eats less salt.

*Objective #5. The patient should learn what the "risk factors" are for coronary disease and atherosclerosis or stroke.*

A pamphlet obtainable from the American Heart Association entitled *Coronary Risk Handbook*<sup>3</sup> is very helpful in this regard. We discuss this with the patient, indicating where he falls on the risk scale and how he can reduce his risks. Other than hypertension, the major remediable risks are smoking, hyperlipidemia, obesity, and inactivity. If the patient is older and has been sedentary, we try to assess his status with a treadmill stress test first.

*Objective # 6. Risks should be reduced for the patient's family.*

Together we go over the importance of salt and weight control for all susceptible relatives, the management of chronic anxiety, and the necessity for regular periods of rest and relaxation. The importance of salt and calorie control in susceptible but unaffected children is a surprise to most of our patients, in that properly it begins in infancy and involves salt restriction that is even greater than I ask my patients to achieve.<sup>4</sup>

### Some Practical Questions

*To what extent can the patient adjust his own medicine?*

In general, an effective regimen once established remains quite constant for months, and tampering with the dosage when all is going well is discouraged. However, we allow some of our patients to modify their programs when they have demon-

strated levelheaded competence to do so.

At the start, the patient, with our concurrence, may vary the dose of his diuretic. Thus, if invited to a dinner with ham and beans, he may double his diuretic. Additionally, we allow some patients to modify doses of some other drugs on their own: if on a long auto trip where there is a danger of sleeping while driving, to reduce or stop methyldopa or reserpine; if there is nasal obstruction in hay fever season or during a respiratory infection, to stop reserpine; if expecting to take a highball or two at a party, to stop methyldopa; if sexual potency is a problem, to experiment with 24-hour omission or dose reduction of diuretic, methyldopa, or guanethidine. We insist that the patient discuss these changes with us, but make such self-management a part of the patient's education program if he can do so reliably.

*Should the patient purchase a blood pressure unit?* There is generally more advantage than disadvantage to taking home blood pressures, providing there is someone who is trustworthy and can do it with regularity. However, in one controlled study<sup>5</sup> comparing 100 patients, half with self-monitoring and half with no home monitoring, little difference could be shown. It is our feeling that some curious patients like to do it and it is helpful to them. In most instances it is better that someone other than the patient take the blood pressure, but there are exceptions to this. When a spouse is monitoring the pressure regularly, he or she should be warned of the hazards of nagging and of a lack of accuracy.

*Which type unit should be obtained?*

On the whole, one should avoid the "cheapies." The mercury manometer is the standard, and it is durable and accurate though somewhat bulky. The aneroid manometer is easier to handle but it can be inaccurate and no one may realize this without recalibration. Also, it has to be repaired at the factory. A useful change in the stethoscope is the modification of the sound pick-up diaphragm to the inexpensive type used by anesthesiologists which is held with an elastic band around the arm or held in place with Velcro<sup>R</sup> or similar material. These latter modifications help a great

deal if the patient is recording his own blood pressures. We have not yet seen any bad effects from such home monitoring of blood pressures.

*What hazards may befall the patient given the chance to help care for himself?*

The patient may become neglectful of his control without the authoritative doctor to remind him of his good intentions. He may fail to consult his physician on a regular basis — “Why should I spend money to see my doctor just to be told I’m doing fine?” On the other hand, he may become neurotically obsessive about his blood pressure and alarmed, especially if he falsely measures the diastolic pressure too high. And finally, he may take an unbalanced view towards his total health needs.

*But what are the possible benefits to the patient in this partnership of care?*

Understanding of medications and their potential ill-effects as well as benefits, should give the patient a greater feeling of confidence and also potentially help him to recognize serious complications very early. He learns “the language,” so that it becomes easier to discuss problems during follow-up visits. He needs to see the physician less often, saving time and money. Perhaps most important, he has the chance to see that hypertension is *his* problem, not his doctor’s, and that hypertension is usually only part of a total health problem.

## Discussion

Achievement rewards are certainly useful in developing adequate motivation. Good motivation generally equals success in management. However, it is well known that despite patients frequently coming back for visits to the physician, the level of successful control of the blood pressure is often incomplete. This has also been true for the diabetic patient. But the patient with hypertension should have greater success than the patient with diabetes because the management is so much simpler.

We set five goals: (1) understanding of the disease; (2) normalization of the blood pressure; (3) relative freedom from side effects of fatigue, nausea, dry mouth, depression, etc; (4) control

of salt intake; and (5) elimination of other controllable risk factors for coronary heart disease and strokes. Two other elements may be added to grace the achievement award. One of these is the taking of the blood pressure on himself or on another person, with accuracy. Certification of this sort is similar to the American Heart Association’s certification for skill in cardiopulmonary resuscitation. A further achievement is the volunteer activity of the patient to help others detect high blood pressure and encourage them to get treatment. We are told that only ten percent of persons with hypertension in our country are under “control.” This evangelistic fervor to help detect hypertension in others and to get them under treatment will go a long way towards insuring that the individual himself adheres to his program. Moreover, it gives him a sense of belonging to the health-care team, because he becomes an example and a teacher, and it behooves him to improve his own performance.

Clearly, not all patients are intelligent enough or mature enough to do well at self-management. Consider this example of an unusually bright college student:

JS, a white, sophomore college student has labile hypertension involving mainly his systolic level, which frequently will be 172/94-96 mm Hg. He loves a good time and college life, and sometimes indulges in a “few beers” on weekends. His drug management has been one diuretic tablet and 160 mg of propranolol daily. Despite strong advice, he continues to smoke cigarettes. His family background shows some coronary artery disease in middle life. Recently he had a severe auto accident posing the problem of beta blockade and shock. How much leeway should the physician give him in his blood pressure management? The answer is obvious.

A doctor is a “teacher” in the ancient meaning of the word “doctor.” Likewise, all our patients can be considered to function, at times, as students. To be sure, their level of competence will vary with their education, their age, and their motivation, but every encounter we have with them should be considered an educational experience, for better or for worse. Certainly, patients with hypertension learn more from their

physicians than they would have a few years ago, when it was customary not even to reveal their blood pressure level. A survey among physicians in our clinics failed to uncover a single recollection of harm produced by education of the patient about his hypertension problem. Thus, the adverse consequences of such patient education appear minimal, although many physicians still hesitate to provide the patient with the information required for adequate self-care.

The advent of physician’s assistants and nurse managers of hypertension has greatly increased the amount of staff time available for patient teaching. Everywhere, hypertensive patients waste potentially valuable periods of time — waiting in our offices, waiting for laboratory tests, and waiting for medication at the pharmacy. Each of these periods represents a time period of high motivation which could be used for education. For the most part, we who are in health care are not using this time properly. Nor is it only the doctors who are the educators; the nurses, the dieticians, the pharmacists, all have the opportunity to help teach our patients. In addition to what patients learn by direct contact, there are now a variety of educational tapes, pamphlets, and patient-related articles that can be made available.<sup>6,7,8</sup> The physician may wish to make his own tapes, and good tapes for patient education are also available from pharmaceutical companies.

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