

Doctors and patients: improving partnership, treatment, and outcomes in hypertension

Chris Arden, MBBS, BSc, MRCGP, BSE

GP, Park & St Francis Surgery, Chandlers Ford & GPSI Cardiology, Southampton, UK

Correspondence: Park & St Francis Surgery, Hursley Road, Chandlers Ford, SO53 1LX, UK
E-mail: chrisarden@nhs.net

Abstract: It is recognized that successfully treating hypertension significantly reduces the risk of cardiovascular events and improves mortality rates. There are, however, a variety of challenges and potential barriers to achieving these goals. These include issues relating to the condition itself, the health care provider, the patient, and the therapy. This article discusses these factors in more depth and identifies potential solutions, with the objective of optimizing management of hypertension and improving long-term outcomes. ■ *Heart Metab.* 2019;79:34-37

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Introduction

Hypertension is increasing in prevalence due primarily to an aging population, together with an increasing presence of comorbidities which predispose to the development of hypertension including diabetes, renal disease, obesity, and adverse lifestyle factors.

Effective treatment of high blood pressure, combining both medication and lifestyle interventions, significantly reduces the risk of cardiovascular events. A reduction of 10 mm Hg in systolic blood pressure lowers the risk of stroke by 38%, cardiovascular death by 21%, and coronary artery disease by 16%.¹ Conversely it is well recognized that up to 50% of patients treated with antihypertensive drugs do not achieve their target blood pressure.² Poorly controlled hypertension confers an increased risk of stroke, myocardial infarction, heart failure, and end-stage renal disease.

A significant factor in suboptimal blood pressure control is poor adherence to both medication and life-

style interventions. Nonadherence to antihypertensive medication is estimated to account for between 43% to 65% of patients with presumed “resistant” hypertension.³ Poor adherence therefore constitutes a major barrier to reducing cardiovascular mortality.

Factors influencing adherence to and persistence with antihypertensive medication and lifestyle interventions

The discrepancy between optimal blood pressure control rates achieved in clinical trial settings (up to 80% in the ACCOMPLISH trial⁴ achieved target blood pressure) and everyday clinical practice is due to a number of factors, including differences in medication-taking behaviour, ie, adherence to and persistence with drug therapy regimens.

Adherence is defined as appropriate use of therapy, including taking medication at the prescribed frequency, interval and dosage. Nonadherence may be either intentional, whereby the patient chooses to deviate from the treatment regimen, or unintentional,

when they may be careless or forgetful about adhering to the treatment regimen. Persistence, on the other hand, is defined as continuing the use of medication for a specified period.

With respect to antihypertensive treatment, a wide range of adherence rates have been reported. A study of 18 806 newly diagnosed hypertensive patients showed that only 8% were classified as high adherers (defined as adherence >80%) and 51% were low (adherence <40%) adherers.⁵ Typically, about 50% of patients discontinue their antihypertensive therapy after 1 year.⁶ At 10 years a persistence rate of 39% has been reported.⁷

Adherence is a dynamic process, varying over time and influenced by a variety of factors. These include those related to the patient, physician, the condition, and the therapy, together with the impact of the health system and socioeconomic factors.

Patient-related factors

These include variable understanding or awareness of the long-term consequences of hypertension and the importance of optimal blood pressure control in reducing cardiovascular risk. This is particularly relevant as hypertension is asymptomatic, and life-long treatment is often necessary. Hypertension may also be perceived as a normal/natural consequence of aging. Physical and cognitive impairment may also significantly impact on adherence.

Physician-related factors

These potentially include a lack of awareness of recommended treatment targets. There may therefore be failure to modify therapy to achieve appropriate blood pressure goals.

Regular appointments and follow-up are important, providing the opportunity to reinforce positive hypertension-related educational messages. It is also recognized that physicians often overestimate the success and impact of antihypertensive therapy, when compared with the clinical reality.

Condition-related factors

Adherence and persistence are typically low in the treatment of asymptomatic chronic disease, including hypertension. In addition treatment is often life-long

and, from the patient's perspective, there are no immediate consequences of discontinuing therapy.

Therapy-related factors

The complexity of the treatment regimen has an important bearing on adherence and therefore efficacy. Adherence decreases proportionally to dose frequency and therapeutic complexity. Adherence has been shown to be higher with angiotensin receptor blockers and lower with diuretics. Intentional nonadherence was more likely in diabetics and patients who reported at least five adverse effects which they attributed to their antihypertensive medications.⁸

Health system and socioeconomic factors

These factors impact patients to varying degrees, and include social isolation or deprivation, employment status, lack of access to health care or poor continuity of care, together with adverse environmental/social factors.

Improving adherence and outcomes with antihypertensive therapy

Studies have shown that high adherers (adherence >80%) had a significantly lower risk of cardiovascular events when compared with low adherers (adherence <40%).⁹ This includes a 22% reduction in stroke incidence in patients with high adherence.¹⁰

In addition, this association may, at least in part, be related to a "healthy adherer" effect, inasmuch as patients who take their medications regularly are also more likely to adhere to other healthy behaviors, including exercising regularly.

Improving outcomes

In terms of improving adherence with antihypertensive therapy, and hence outcomes, there are four important areas which need to be addressed which include:

The patient

It is imperative that the patient be involved in treatment decisions at all stages and has a good understanding of the long-term health implications, including the

asymptomatic nature of uncontrolled hypertension, and the adverse consequences of suboptimal blood pressure control.

A patient-centered approach and good communication skills will help identify any potential barriers from the patient's perspective with regards to adherence and develop a personalized self-management plan. It may also be helpful to involve family or carers, depending on individual circumstances. Patient education can be enhanced using verbal, written, or visual tools.

The health care provider

A variety of strategies ensures the health care provider has an important role in supporting patient adherence. These include good communication and interpersonal skills which help establish trust between the health care provider and patient. This ensures they have a collaborative relationship which will help promote adherence.

Convenient and regular clinic reviews also provide the opportunity to reinforce hypertension-related educational messages.

The health care provider should be alert to identify conditions, eg, depression or cognitive impairment, which may impact on adherence. Treatment regimens may need to be tailored to the patient's needs and simplified or adapted as necessary.

The treatment

Adherence is closely correlated to dosing schedule, decreasing from 84% for a once-daily dose to 59% for three times a day dosing.¹¹ Ideally a once-daily dosing regimen is preferable, although, as approximately two-thirds of patients will require combination treatment to achieve satisfactory blood pressure control, the option of fixed-dose combinations should be considered in order to promote adherence. There is evidence that initiating treatment with low-dose combination therapy is better tolerated and more efficacious than uptitrating the dose of a single drug.

Therapeutic interventions

The wider health environment will also potentially impact on the patient's perception and confidence with regard to the management of their hypertension. It is important

to supervise treatment and positively reinforce adherence with drug and lifestyle interventions. Involving a family member, carer, nurse, or pharmacist may also be helpful in supporting the patient and improving adherence. In this setting a "multidisciplinary team" approach has the potential to improve outcomes.

Patients should be active participants in their own treatment and encouraged to monitor their blood pressure at home. There is evidence that home monitoring improves treatment adherence and may also motivate patients to adopt healthy lifestyle interventions.¹²

Conclusion

Managing hypertension successfully presents a variety of challenges, not least due to the condition's increasing prevalence, ensuring that we need to identify and adopt effective strategies in order to realize the benefits of improving cardiovascular outcomes. These include recognizing the positive impact of long-term adherence with regard to both medical therapy and lifestyle interventions. It is important that the health care provider and patient work in partnership, potentially also including family and carers, to ensure optimal outcomes and quality of life are achieved. ■

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